



Grange Academy

National 5 Lifeskills

Core Skills Booklet

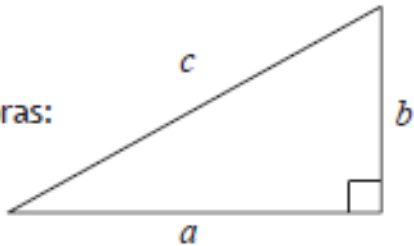
Name:

FORMULAE LIST

Circumference of a circle: $C = \pi d$

Area of a circle: $A = \pi r^2$

Theorem of Pythagoras:


$$a^2 + b^2 = c^2$$

Volume of a cylinder: $V = \pi r^2 h$

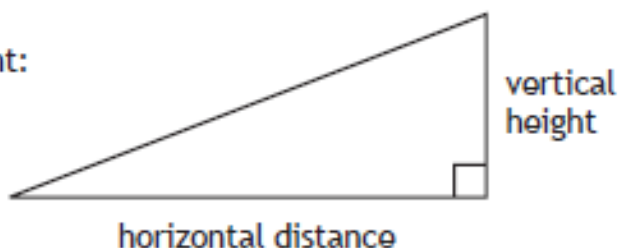
Volume of a prism: $V = Ah$

Volume of a cone: $V = \frac{1}{3} \pi r^2 h$

Volume of a sphere: $V = \frac{4}{3} \pi r^3$

Standard deviation: $s = \sqrt{\frac{\sum(x - \bar{x})^2}{n-1}} = \sqrt{\frac{\sum x^2 - (\sum x)^2/n}{n-1}}$, where n is the sample size.

Gradient:


$$\text{gradient} = \frac{\text{vertical height}}{\text{horizontal distance}}$$

Homework	1	2	3	4	5	6
Score						

Past Paper Summary:

National 5 Lifeskills	Specimen Paper		2014		2015		2016	
	Paper 1	Paper 2	Paper 1	Paper 2	Paper 1	Paper 2	Paper 1	Paper 2
Percentages				Q4	Q4	Q1b, 5d		Q1, Q7b
Fractions	Q1							
Time	Q2a				Q2		Q3	Q2
Speed/Distance/Time	Q2b	Q1	Q5	Q6				Q4b, 6c
Perimeter					Q7	Q2b	Q6	
Ratio and Proportion	Q7					Q1a		
Volume		Q5	Q9			Q6c		Q8
Interpreting Graphs, Charts and Tables			Q1,		Q1	Q2a, Q6a,b	Q7	Q3
Probability			Q2				Q2	
Tolerance					Q4, Q8			
Rules and Formulae								
Packing					Q3			
Precedence Tables	Q4		Q6				Q5	
Scale Drawing				Q3		Q4		Q4a
Pythagoras			Q3a	Q5a	Q7		Q6	
Gradient	Q9				Q8		Q10	
Area	Q7		Q3b	Q5b	Q10		Q8, 9	
Gross pay, Deductions and Net Pay	Q8b		Q4a				Q4	
Wages and Salaries								Q7a
Income Tax and Allowances	Q8a							
Borrowing Money		Q4						Q7c
Insurance								
Profit and Loss	Q3				Q6			
Foreign Currency	Q6	Q6	Q8					Q5b
Compound Interest								
Best Deal				Q2	Q5		Q1	Q5a
Budgeting		Q2	Q4b	Q7	Q9	Q3		
Quartiles						Q5a		
Box Plot	Q10		Q7			Q5a		
Averages		Q3c,d						
Standard Deviation		Q3a,b		Q1		Q5b,c		Q6a,b
Scattergraphs	Q5							

Summary

Keep a record of the questions that you are getting right.

Use this to identify the areas where you are struggling a bit.

Ask your teacher for help with these areas!

1. Percentages						
2. Fractions						
3. Ratio and Proportion						
4. Speed, Distance, Time						
5. Area and Perimeter						
6. Volume						
7. Graphs, Charts and Tables						
8. Probability						
9. Tolerance/ Scale Drawing.						
10. Rules and Formulae						
11. Pythagoras' Theorem						
12. Gradient						
13. Circle						
14. Income						
15. Money: VAT, Hire Purchase, Profit and Loss						
16. Money: Foreign Currency, interest, Loans						
17. Best Deals						
18. Averages						
19. Mean and Standard Deviation						
20. Five figure summary and Box plots						
	Homework 1	Homework 2	Homework 3	Homework 4	Homework 5	Homework 6

Homework Sheet 1

1 (calculator)

Mr Houston bought a new car for £18500 in July 2010. Its value depreciated by 15% in the first year, 18% in the second year and 25% in the third year. By how much had its initial price fallen by July 2013?

2 (non-calculator)

Evaluate $3\frac{5}{8} + 4\frac{2}{3}$.

3 (non-calculator)

A cake recipe requires self raising flour and plain flour in a ratio of 3 : 1.

- The cake needs 300g of self raising flour. How much plain flour is needed?
- Jenny wants to make as many cakes as possible for a fair. She has 730g of self raising flour and 200g of plain flour. How many cakes can she make at most?

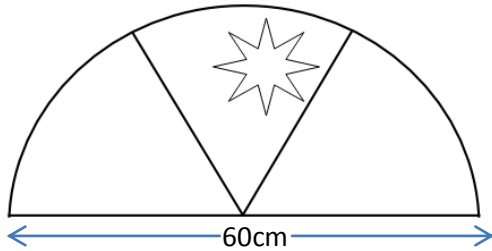
4 (calculator)

Joe is preparing to run the London Marathon. He jogs round the perimeter of Strathclyde park 5 days a week for 4 weeks.

His average speed is 9km/hr and his recorded total running time for the month is 12 hours 42 minutes. Find the perimeter distance of the park.

5 (calculator)

A semi-circular window is made from three identical pieces of glass.

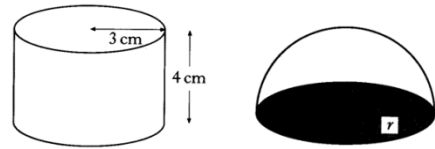


One pane of glass was smashed by a ball. The semi-circle has a diameter of 60 centimeters. Work out the area of the damaged pane of glass. ($\pi = 3.14$)

6 (calculator)

a) A cylindrical paperweight of radius 3cm and height 4cm is filled with sand.

Calculate the volume of sand in the paperweight.



b) Another paperweight, in the shape of a hemisphere, is filled with sand. It contains the same volume of sand as the first paperweight. Calculate the radius of the hemisphere.

7 (calculator)

Paul conducts a survey to find the most popular school lunch.

- 30 pupils vote for Pasta
- 40 pupils vote for Baked Potato
- 2 pupils vote for Salad

Paul wishes to draw a Pie Chart to illustrate his data. How many degrees must he use for each sector?

Do **not** draw the pie chart.

8 (non-calculator)

Davina has a bag of sweets. It contains 3 yellow, 4 purple, 2 red and 6 pink sweets. The corner of her bag is torn and a sweet falls out.

- What is the probability that this sweet is yellow?
- The sweet that fell out was yellow and she put it in a bin. What is the probability that the next sweet to fall out is pink?

9 (non-calculator)

A sculpture is to be made by stacking three blocks of stone. Each block of stone is a cube of side (1.2 ± 0.05) metres. What is the maximum height of the sculpture?

10 The Room Index is used to calculate the amount of light needed in a workroom.

The formula for the Room Index, R , is $R = \frac{LW}{H(L+W)}$

Where L metres is the length of the room,

W metres is the width of the room

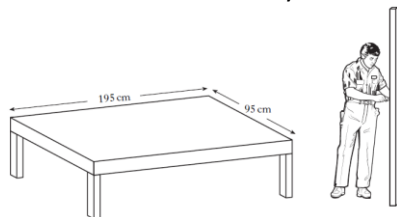
and H metres is the height of the light above the work surface.

Calculate the Room Index for a workroom 4.4 metres long, 3.2 metres wide with the light 1.4 metres above the work surface.

Homework Sheet 1

11 (calculator)

Phil is making a wooden bed frame. The frame is rectangular and measures 195cm by 95cm.



To make the frame rigid, Phil is going to add a piece of wood along one of its diagonals. He has a piece of wood 2.2 metres long.

Is this piece of wood long enough to fit along the diagonal?

Give a reason for your answer.

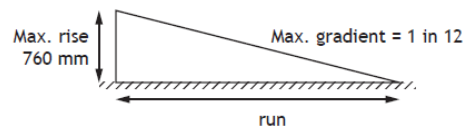
Do not use a scale drawing.

12 (non-calculator)

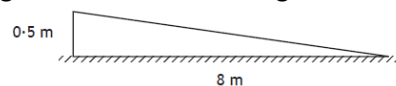
The 'Accessibility Guidelines for Buildings and Facilities for Wheelchair Access' give two recommendations.

Recommendations

1. The maximum gradient of a ramp shall be 1 in 12.
2. The maximum rise shall be 760 mm for any length of run.



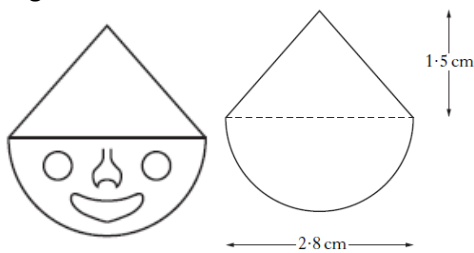
The drawing below shows the design of a new ramp.



- a) Does the ramp meet recommendation 1? Give a reason.
- b) Does the ramp meet recommendation 2? Give a reason.

13 (calculator)

A badge showing a clown's head consists of a semi-circle and a triangle.



Calculate the area of the badge in square centimetres.

Give your answer correct to 1 decimal place.

14 (calculator)

A copy of Logan Pollock's payslip is shown below for one week in February. Logan worked 40 hours for his basic pay.

Name L. Pollock	Employee No. 027	Tax Code 64L	Week Ending 14/02/2012
Basic Pay £296.00	Overtime Pay £55.50	Bonus —	Gross Pay £351.50
National Insurance £20.04	Income Tax £45.40	Pension £21.09	Deductions £86.53
			Net Pay £264.97

If overtime was paid at the rate of "time and a half", calculate how many hours of overtime he worked during that week.

15 (non-calculator)

Abby bought a mobile phone for £125.

She sold it a few months later for £80.

Calculate her loss as a percentage of what she paid for the phone.

16 (calculator)

The bank of Salamander offers loans to its customers.

The table shown below can be used to calculate loan repayments.

		60 months	48 months	24 months
		Monthly repayment (£)	Monthly repayment (£)	Monthly repayment (£)
With payment protection	£20 000	467.85	555.43	998.23
	£15 000	351.89	417.57	749.67
	£7 500	177.94	210.79	376.84
Without payment protection	£20 000	388.65	471.72	888.47
	£15 000	292.49	354.79	667.35
	£7 500	148.29	179.40	335.68

Amy requires to borrow £15000 to buy a car.

How much will the loan cost her if she repays it over 24 months, without payment protection?

Homework Sheet 1

17 (calculator)

The tariffs shown below are available when buying a mobile phone.

Pay As You Go Calls: 14p per minute

Monthly Contract Rental: £18 per month Calls: 6p per minute
--

a) Find the cost of using 200 minutes of calls each month on the

- (i) Pay As You Go tariff;
- (ii) Monthly Contract tariff.

b) Nick and Amy have mobile phones.

Nick is on Pay As You Go and Amy has a monthly contract.

In April:

- The cost to each other was exactly the same
- Nick used the same number of minutes as Amy. How many minutes was this?

18 (non-calculator)

The number of visitors to **Farrhill Museum** is recorded daily over a three week period. The results are shown in the stem and leaf diagram below.

3		2	7						
4		3	6	6	7				
5		0	4	5	8	8	9		
6		2	5	7	8				
7		0	2	2	5				
8		5							

$n = 21$ 4|3 represents 43 visitors.

a) What is the probability that on any given day in this three week period there were more than 70 visitors to Farrhill Museum?

b) For the given data, calculate:

- (i) the median;
- (ii) the lower quartile;
- (iii) the upper quartile.

In the same three week period, the number of visitors to **Farrhill Castle** is recorded daily. For this data the semi-interquartile range is found to be 5.

c) Make an appropriate comment comparing the distribution of visitors to the museum and castle.

19 (calculator)

A ten-pin bowling team recorded the following six scores in a match.

134 102 127 98 104 131

For this sample calculate:

- a) the mean
- b) the standard deviation

Show clearly all your working.

20 (non-calculator)

Sandy takes the bus to work each day.

Over a two week period, she records the number of minutes the bus is late each day. The results are shown below:

5 6 15 0 6 11 2 9 8 7

a) From the above data, find:

- (i) the median
- (ii) the lower quartile
- (iii) the upper quartile

b) Construct a box plot for the data.

Homework Sheet 2

1 (calculator)

It is estimated that house prices will increase at the rate of 3.15% per annum.
A house is valued at £134,750. If its value increases at the predicted rate, calculate its value after 3 years.
Round your answer to the nearest thousand.

2 (non-calculator)

Evaluate $\frac{3}{4}$ of 480g .

3 (non-calculator)

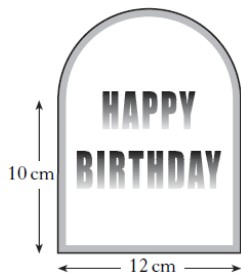
A coffee shop blends its own coffee and sells it in one-kilogram tins.
One blend consists of two kinds of coffee, Brazilian and Colombian, in the ratio 2: 3.
The shop has 20 kilograms of Brazilian and 25 kilograms of Columbian in stock.
What is the **maximum** number of one-kilogram tins of this blend which can be made?

4 (calculator)

For safety reasons the speed limit outside Fairfield Park is 20 miles per hour.
The distance between the speed limit signs outside Fairfield Park is half a mile.
A van took 2 minutes to travel between these signs.
Was the van travelling at a safe speed?
Give a reason for your answer.

5 (calculator)

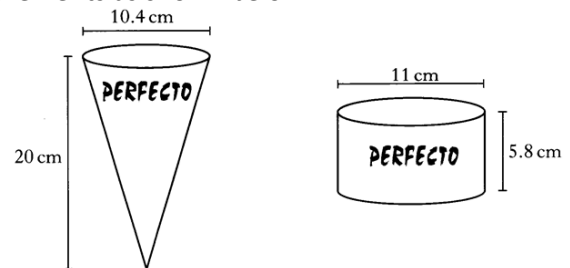
The diagram below shows a birthday card.



The card consists of a rectangle and a semi-circle.
There is gold ribbon all round the border of the card.
Calculate the total length of gold ribbon needed for this card.
Give your answer to the **nearest centimetre**.

6 (calculator)

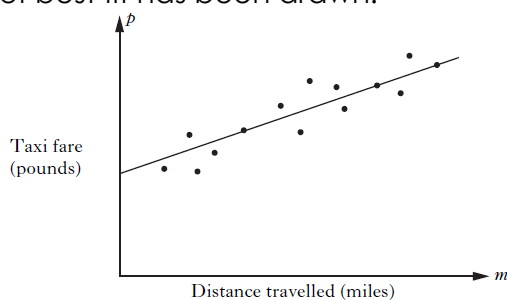
Perfecto Ice Cream is sold in cones and cylindrical tubs with measurements as shown below:



Both the cone and the tub of ice cream cost the same.
Which container of ice cream is better value for money?
Give a reason for your answer.

7 (non-calculator)

The scattergraph shows the taxi fare, p pounds, plotted against the distance travelled, m miles.
A line of best fit has been drawn.



The equation of the line of best fit is $p = 2 + 1.5m$.
Use this equation to predict the taxi fare for a journey of 6 miles.

8 (non-calculator)

A school office orders 25 boxes of folders. They order 7 boxes of blue folders, 11 boxes of green folders, 3 boxes of pink folders and 4 boxes of yellow folders. The order arrived in identical boxes but they are not labelled.

- What is the probability that the first box opened contains pink folders?
- The first box contained green folders. What is the probability that the next box opened contains blue folders?

9 (calculator)

A wooden cube has each of its sides measured as 6cm. All measurements are within a tolerance of $(\pm 0.2 \text{ cm})$.
a) Calculate the minimum and maximum volume of the cube, in cubic centimetres.
b) The weight of the cube is (0.63 ± 0.04) grams per cubic centimetre.
Calculate the minimum possible weight of the wooden cube.

10 (non-calculator)

The approximate stopping distance of a car can be found by using the formula

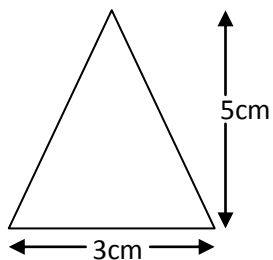
$$D = \frac{1}{3} \left(s + \frac{s^2}{20} \right)$$

Where D metres is the approximate stopping distance and s miles per hour is the speed before braking.
Calculate the approximate stopping distance when the speed before braking is 30 miles per hour.

Homework Sheet 2

11 (calculator)

An earring in the shape of an isosceles triangle is made from silver wire.
The dimensions of the earring are shown on the diagram below.



Calculate the length of silver wire needed to make a **pair** of earrings.

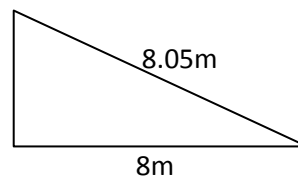
Do not use a scale drawing.

12 (calculator)

When council buildings are built there are two legal points that must be adhered to for wheelchair access:

1. The maximum height should be 900mm for any length of ramp.
2. The maximum gradient of a ramp should be 0.10

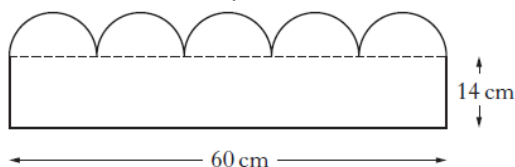
The drawing shows the design of a new wheelchair ramp.



- a) Does it meet legal requirement 1? Explain your answer.
- b) Does it meet legal requirement 2? Explain your answer.

13 (calculator)

A section of lawn edging consists of a rectangle with five equal semi-circles at the top.



Calculate the area of the section in square centimetres.

Give your answer correct to the **nearest square centimetre**.

14 (calculator)

Jack works a basic week of 35 hours.

Any overtime is paid at time and a half.

One week he works for 39 hours and is paid £255.84.

How much is he paid for each hour of **overtime** that he works?

15 (calculator)

The Davidson family is planning to buy a new kitchen using hire purchase.

The cash price of the kitchen is £6300.

The hire purchase price is 22% more than the cash price.

The hire purchase agreement requires a deposit, which is 15% of the cash price, followed by 60 equal installments.

Calculate the cost of each installment.

16 (calculator)

The table below gives the **monthly** repayments from three different banks on a £10 000 loan repaid over **five years**.

Name of Bank	Monthly Repayments	
	With payment protection	Without payment protection
Savewell	£245.39	£214.39
Finesave	£260.58	£205.65
Wisepend	£263.17	£214.70

Emily borrowed £10 000 and paid it back over five years. The cost of the loan was £2339. Which bank was the loan from and did she take it with or without payment protection?

Homework Sheet 2

17 (calculator)

Two lenders, Mortgages Direct and Leading Mortgage, offer mortgages at different rates on a loan of £45000.

Mortgages Direct
Monthly payments
£330.50
plus one set-up fee
£500

Leading Mortgage
Monthly payment
£349.90
and no other fees to
pay.

Which mortgage would be better value over a period of 3 years and by how much?

18 (non-calculator)

One weekend, the attendances at five Premier League football matches were recorded.

8900 12700 59200 10300 9700

The median attendance is 10300.

- a) Calculate the mean attendance.
b) Which of the two “averages” – the mean or median – is more representative of the data?
You must explain your answer.

19 (calculator)

A sample of six boxes contains the following numbers of pins per box:

43 39 41 40 39 44

- a) For the above data, calculate:
(i) the mean;
(ii) the standard deviation.

The company which produces the pins claims that “the mean number of pins per box is 40 ± 2 and the standard deviation is less than 3”.

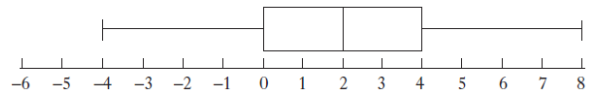
- b) Does the data in part (a) support the claim made by the company?
Give two reasons for your answer.

20 (non-calculator)

At a ski resort the temperature in degrees Celsius was recorded each day at noon for the first fortnight in February 2013.

0 -1 2 -5 4 2 -3 1 -4 8 -6 4 -2 1

- a) Calculate
(i) the median temperature;
(ii) the lower quartile;
(iii) the upper quartile.
b) Use the above data to construct a box plot.
c) The temperature, in degrees Celsius, was recorded at the same ski resort each day at noon for the first fortnight in February 2014.
The following boxplot was constructed.



Compare the two boxplots and comment.

Homework Sheet 3

1 (calculator)

An industrial machine costs £176 500.
Its value depreciates by 4.25% each year.
How much is it worth after 3 years?
Give your answer correct to the **nearest thousand**.

2 (non-calculator)

Evaluate $1\frac{3}{5} \times 2\frac{4}{7}$.

3 (calculator)

Ben needs 550 grams of flour to bake two small loaves of bread.

a) How many **kilograms** of flour will he need for thirteen small loaves?

Ben buys his flour in 1.5 kilogram bags.

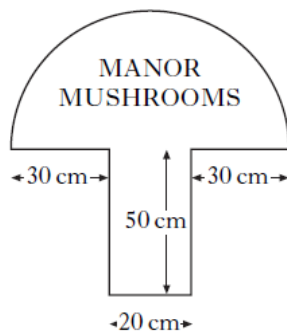
b) How many bags of flour will he need to bake the thirteen small loaves?

4 (calculator)

Katy drove 351 miles from Perth to Birmingham.
Her average driving speed was 52 miles per hour.
She also had two 40 minute stops during the journey.
She left Perth at 1750.
When did she arrive in Birmingham?

5 (calculator)

A sign for a mushroom farm consists of a semi-circle and a rectangle.



There is a red border painted all around the edge of the sign.

Calculate the total length of the red border.

Give your answer correct to the **nearest centimetre**.

6 (calculator)

The Battle of Largs in 1263 is commemorated by a monument known as The Pencil.



This monument is in the shape of a cylinder with a cone on top.

The cylinder part has diameter 3 metres and height 15 metres.

a) Calculate the volume of the **cylinder** part of The Pencil.

The volume of the **cone** part of The Pencil is 5.7 cubic metres.

b) Calculate the **total** height of The Pencil.

7 (non-calculator)

The fuel consumption, in miles per gallon, of twenty one cars is shown below.

62	36	54	31	45	27	46
29	39	33	50	42	53	28
36	32	30	44	38	34	41

a) Display the information in a stem and leaf diagram.

b) Find the median fuel consumption in miles per gallon.

c) Find the range.

8 (non-calculator)

Two identical dice are rolled simultaneously. Find the probability that the total score on adding both numbers will be greater than 7 but less than 10.

9 (non-calculator)

A sweet manufacturer rejects packets of sweets whose weight does not lie within the acceptable tolerance level of $(120 \pm 2\%)$ grams.

Which of these packets should be rejected:

a) 118.2 grams b) 117.1 grams c) 122 grams

10 (non-calculator)

The size of each angle, a° , in a regular polygon is given by the formula

$$a = 180 - \frac{360}{n}$$

where n is the number of sides in the regular polygon.

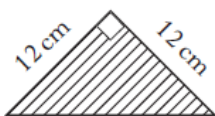
a) Calculate a when $n = 10$.

b) Calculate n when $a = 140$.

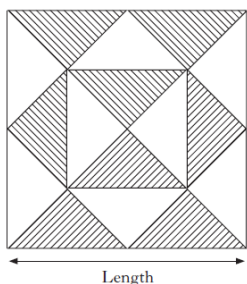
Homework Sheet 3

11 (calculator)

Jo is making a patchwork cushion.
Each patch is a right-angled triangle
With both short sides 12 centimetres long.



She makes the cushion by arranging the patches as shown.

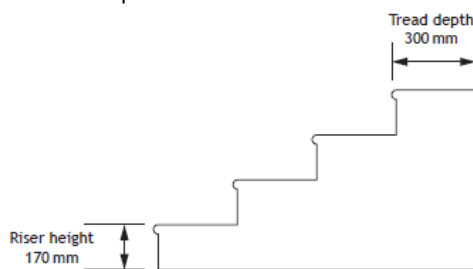


Calculate the length of the cushion.

Do not use a scale drawing.

12 (calculator)

The diagram below shows a staircase Mark intends to install in his home. The dimensions of the riser and tread of each step are shown.



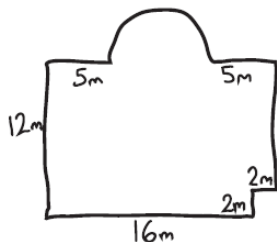
For safety reasons, these rules must be applied.

- Twice the riser height plus the tread depth should be $625\text{mm} \pm 15\text{mm}$.
- The gradient of each step should be less than $\frac{1}{2}$.

Mark thinks that this staircase will meet both of these rules. Is mark correct? Justify your answer.

13 (non-calculator)

A hotel is redecorating their function room which includes a semi-circular stage area. They plan to lay a hardwood floor. A sketch of the plan of the room is shown below.



Calculate the area of the floor in the hotel's function room.

(non-calculator, use $\pi = 3.14$)

14 (calculator)

Shirley works in a call centre. Her basic rate of pay is £6.40 per hour.

She is paid time and a half for working overtime in the evening and double time for working overtime at the weekend.

One week she works 35 hours at the basic rate and 6 hours overtime in the evening. She also works overtime at the weekend.

Shirley's gross pay for the week is £320.

How many hours did she work at the weekend?

15 (calculator)

A microwave oven is sold for £150.

This price includes VAT at 17.5%.

Calculate the price of the microwave oven **without**

16 (calculator)

The table below shows the monthly repayments to be made when money is borrowed from the Bank of Caledonia.

Repayments can be made with or without loan protection.

Loan Amount	Monthly repayments: Bank of Caledonia					
	24 months		36 months		48 months	
	With Loan Protection	Without Loan Protection	With Loan Protection	Without Loan Protection	With Loan Protection	Without Loan Protection
£10 000	£495	£445	£343	£305	£277	£237
£8 000	£395	£356	£275	£244	£222	£190
£5 000	£247	£223	£172	£153	£139	£119
£4 000	£198	£179	£138	£123	£111	£95

Jeremy borrows £8000 over 36 months **without** loan protection.

After 28 months he is made redundant and is unable to pay the remainder of the loan.

His brother, Peter, agrees to make the remaining repayments. How much does Peter pay in total?

Homework Sheet 3

17 (calculator)

Scott sees the following notice in the window of the Big Computer Shop.

THE BIG COMPUTER SHOP:
Massive sale $33\frac{1}{3}\%$ discount on all purchases.

a) A computer was £834. How much would Scott pay for it in the sale?

The same computer can be bought in Pete's PC Shop on hire purchase.

PETE'S PC SHOP:
£55 deposit and £23.33 per month for 2 years.

b) Which shop sells the computer cheaper?

Show your working.

18 (non-calculator)

Shoppers at two stores, Lidl and Aldi, were asked how much they spent on their last visit to the store.

Listed below are the amounts (in £) spent by ten shoppers at Lidl.

48 37 42 57 81 73 64 61 72 39

a) Find the median.

b) Find the range.

Another ten shoppers were asked at Aldi.

The median was £67 and the range was £28.

c) Make two comments comparing the amounts spent by the shoppers at the Lidl and Aldi stores.

19 (calculator)

A rugby team scored the following points in a series of matches.

13 7 0 9 7 8 5

a) For the sample, calculate:

(i) the mean;

(ii) the standard deviation

Show clearly all your working.

The following season, the team appoints a new coach.

A similar series of matches produces a mean of 27 and a standard deviation of 3.25.

b) Make two valid comparisons about the performance of the team under the new coach.

20 (non-calculator)

The pupils in a primary class record their shoe sizes as shown below.

8	7	6	5	6
5	7	11	7	7
7	8	7	9	6
8	6	5	9	7

a) for this data, find:

(i) the median;

(ii) the lower quartile;

(iii) the upper quartile.

b) Construct a box plot for this data.

Homework Sheet 4

1 (calculator)

Calculate the **compound interest** earned when £50 000 is invested for 4 years at 4.5% per annum.
Give your answer to the **nearest penny**.

2 (non-calculator)

Find $\frac{5}{6}$ of 420.

3 (non-calculator)

School theatre visits are arranged for parents, teachers and pupils.

The ratio of parents to teachers to pupils **must** be 1: 3: 15.

a) 45 pupils want to go to the theatre. How many teachers must accompany them?

b) The theatre gives the school 100 tickets for a play. What is the maximum number of pupils who can go to the play?

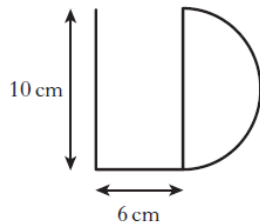
4 (calculator)

A car travelling at an average speed of 80 kilometres per hour takes 2 hours 45 minutes for the journey from Dundee to Inverness.

Calculate the distance between the two towns.

5 (non-calculator)

Lizzie Douglas bends a length of wire into the shape of her initials.



The letter D is a semi-circle.

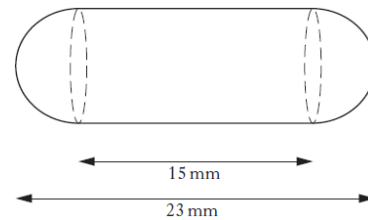
Calculate the total length of wire.

Give your answer correct to the **nearest centimetre**.

6 (calculator)

A health food shop produces cod liver oil capsules for its customers.

Each capsule is in the shape of a cylinder with hemispherical ends as shown in the diagram below.

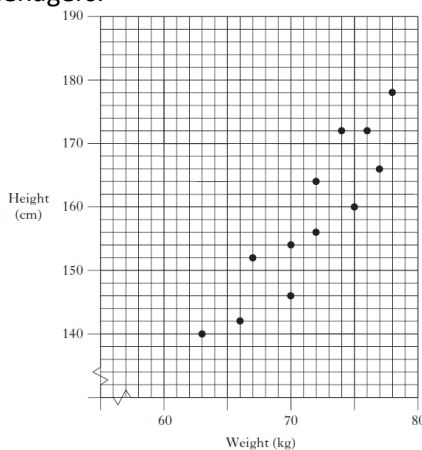


The total length of the capsule is 23 millimetres and the length of the cylinder is 15 millimetres.

Calculate the volume of one cod liver oil capsule.

7 (non-calculator)

The scattergraph shows the weights and heights of a group of teenagers.



a) Draw a line of best fit through the points on the graph.

b) Use your line of best fit to estimate the height of a teenager whose weight is 80 kilograms.

8 (non-calculator)

A mini lottery game uses **red, green, blue** and **yellow** balls. There are 10 of **each** colour, numbered from 1 to 10.

The balls are placed in a drum and one is drawn out.

a) What is the probability that it is a **6**?

b) What is the probability that it is a **yellow 6**?

9 (calculator)

When training for a 10k, Craig timed himself. His times ranged from 56 minutes down to 42 minutes.

a) Write down his times in tolerance notation as in $(. \pm .)$ minutes.

b) Now calculate his tolerance using percentages as ... mins $(\pm .. \%)$.

10 (non-calculator)

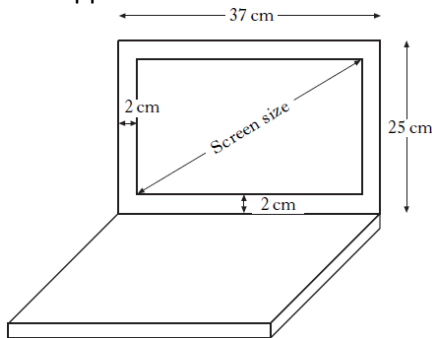
A civil engineer uses the formula $A = \frac{1}{2}l(b + h)$ to calculate a particular area, A.

Calculate A when $l = 8$, $b = 6$ and $h = 12$.

Homework Sheet 4

11 (calculator)

The screen size of a laptop computer is the length of the diagonal from one corner of the rectangular screen to its opposite corner.



The laptop measures 37 centimetres by 25 centimetres as shown.

The frame around the screen has a width of 2 centimetres.

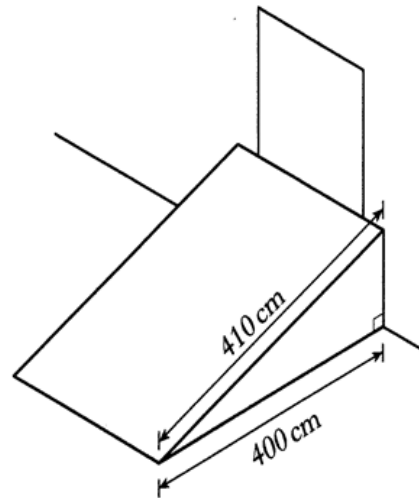
Calculate the screen size of this laptop.

Do not use a scale drawing.

12 (calculator)

A new regulation states that the gradient of all ramps into a building must be less than 0.26.

An existing ramp is 410cm long and has a horizontal distance of 400cm.

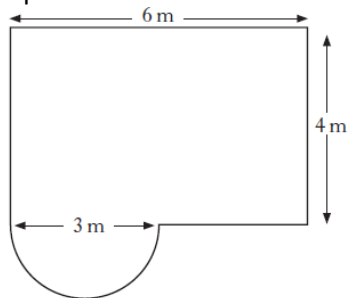


Does the ramp satisfy the new regulation?

Show all your working and give a reason for your answer.

13 (calculator)

The plan of a patio is shown below.



The patio consists of a rectangle and a semi-circle.

Calculate the area of the patio.

Give your answer to the **nearest square metre**.

14 (calculator)

Erica works as a masseuse at a health club.

Her March payslip, shown below, is only partly completed.

Name	Employee No.	Tax Code	Month
E. Roe	666	710L	March
Basic Pay	Overtime Pay	Bonus	Gross Pay
£1350	–		
Nat. Insurance	Income Tax	Pension	Deductions
£187.42	£297.59		
			Net Pay

Erica is paid a bonus of £7.25 for each massage she does.

During March she does 88 massages.

Erica pays 6% of her Gross Pay into her Pension.

Calculate Erica's Net Pay for March.

15 (calculator)

Tony sells jewellery.

One day he earned £90 commission for selling jewellery worth £750.

Express Tony's commission as a percentage of his sales.

16 (calculator)

a) Before he went on holiday to Australia, Jack changed £2000 into Australian dollars.

The exchange rate was £1 = AU\$1.58.

How many Australian dollars did Jack receive for £2000?

b) While in Australia he changed a further £400 into Australian dollars.

He received AU\$620.

What was the new exchange rate?

Homework Sheet 4

17 (calculator)

Helen travels between Glasgow and Edinburgh by train. She buys a monthly Travel Pass which costs £264.30. A daily return ticket would cost £16.90. Last month Helen made 19 return journeys. How much did she save by buying the travel pass?

18 (calculator)

The heights (in metres) of nine rugby players are shown below:

1.89 1.85 1.91 2.01 1.93 1.78 1.81 2.03 1.88

- (a) find the lower quartile.
(b) Calculate the interquartile range.

19 (calculator)

Harry often plays golf and the scores for some of his games are recorded below.

84 78 87 80 81

- a) For this sample calculate:
(i) the mean;
(ii) the standard deviation.

Show clearly all your working.

- b) His partner for these games is Tony, whose scores are listed below.

104 98 107 100 101

Write down the mean and standard deviation of Tony's scores.

20 (non-calculator)

The stem and leaf diagram shows the number of minutes on average spent on homework per night by a group of first year pupils.

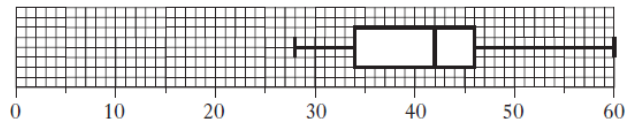
```

1 | 0 5 5 5
2 | 0 1 2 2 3 5 5 8 9
3 | 0 5 5 6 6 7 8 9 9 9
4 | 2 4 4 5 6 7
5 | 0
    
```

$n = 30$

1 | 0 represents 10 minutes

- a) Using the above data find:
(i) the median;
(ii) the lower quartile;
(iii) the upper quartile.
b) Draw a boxplot to illustrate this data.
c) A group of fourth year pupils was surveyed to find out how many minutes on average they spend on homework per night. The boxplot below was drawn for this data.



Compare the two boxplots and comment.

Homework Sheet 5

1 (calculator)

In the evening, the temperature in a greenhouse drops by 4% per hour. At 8pm the temperature is 28° Celsius. What will the temperature be at 11pm?

2 (non-calculator)

Evaluate $3\frac{1}{2} + \frac{4}{5}$.

3 (non-calculator)

A recipe for Shortbread uses the following ingredients.

- 300 grams flour
- 100 grams sugar
- 200 grams butter

Alana has only 240 grams of flour.

To make Shortbread using all of the 240 grams of flour she will have to adjust the quantities of sugar and butter.

How many grams of sugar and how many grams of butter should she use?

4 (calculator)

Amy and Brian travel from Dundee to Stonehaven. The distance between Dundee and Stonehaven is 80 kilometres.

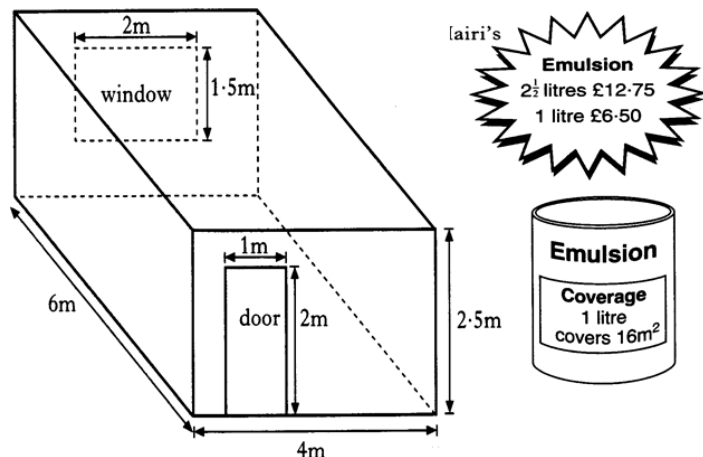
Amy takes 1 hour 30 minutes to travel by car.

Brian takes the train which travels at an average speed of 60 kilometres per hour.

What is the difference between their journey times?

5 (calculator)

Mairi is planning to paint the walls of her room with emulsion paint. The room is in the shape of a cuboid, with the dimensions shown:

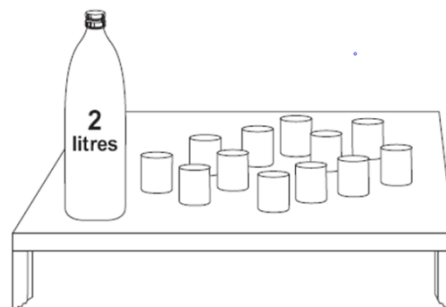


- a) How much paint does Mairi need to paint the walls of her room?
- b) Paint is sold only in 1 litre and 2.5 litre tins. What will be the minimum cost of painting Mairi's room with emulsion?

6 (calculator)

Lemonade is to be poured from a 2 litre bottle into glasses.

Each glass is in the shape of a cylinder of radius 3 centimetres and height 8 centimetres.



How many full glasses can be poured from the bottle?

7 (calculator)

A sample of voters was asked how they intended to vote at the next election. The responses are shown below.

SNP	35%
Labour	30%
Liberal Democrats	15%
Conservative	10%
Others	10%

Construct a pie chart to illustrate this information.

Show all of your working.

8 (calculator)

John's school sells 1200 tickets for a raffle. John buys 15 tickets.

John's church sells 1800 tickets for a raffle. John buys 20 tickets.

In which raffle has he a better chance of winning the first prize?

Show clearly all your working.

Homework Sheet 5

9 (calculator)

Usain Bolt's trial times for the 200 metre sprint race are (19.9 ± 0.05) seconds. Calculate his fastest and his slowest speed in the 200 metres race, in metres per second, correct to 2 decimal places each time.

10 (non-calculator)

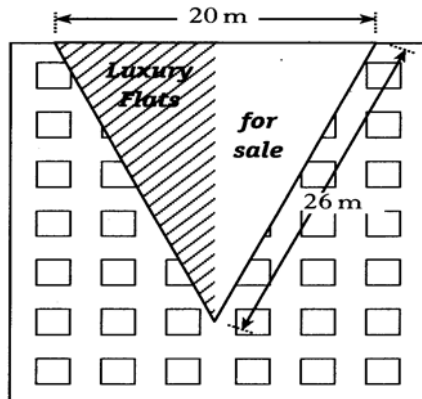
The sum of the terms of a sequence of numbers is given by the formula

$$S = \frac{a(r^n - 1)}{r - 1}$$

Calculate S when $a = 3$, $r = 2$ and $n = 4$.

11 (calculator)

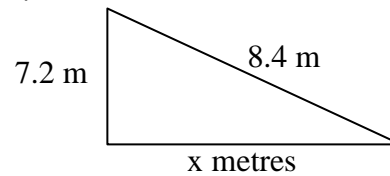
A large advertising banner is hanging from a building.



The banner is an isosceles triangle. The top edge of the banner is 20 metres and each of the other two sides is 26 metres long. Find the area of the banner.

12 (calculator)

The diagram represents an escalator connecting two levels in a new department store.



a) Calculate the horizontal distance (x).

The "steepness" should not be more than 1.45.

b) On completion, the site engineer confirmed that the escalator met the regulation. Did it? Explain your answer.

13 (non-calculator)

A supermarket has a canopy over its entrance. The edge of the canopy has 6 semi-circles as shown below.



Each semicircle has a diameter of 4 metres.

a) Find the length of the curved edge of **one** of the semicircles.

b) Tony attaches fairy lights to the edge of the canopy.



He has 40 metres of fairy lights. Is this enough for the whole canopy? Give a reason for your answer.

14 (calculator)

Alice Larsson is a nurse. She earns a gross salary of £27080 per year. She has tax allowances totaling £9940. The rates of tax applicable are as follows.

Taxable income	Rate
On the first £32 010	20%
On the next £117 990	40%
On any income over £150 000	45%

Calculate Alice's annual tax bill for last year.

Homework Sheet 5

15 (non-calculator)

Cash Price £360



Monthly Payment Plan
Deposit $\frac{1}{5}$ of cash price
and 30 monthly payments

Liam buys a new stereo using the monthly payment plan. The cash price of the stereo is £360.

The total cost of the monthly payment plan is 5% more than the cash price.

Liam pays a deposit of one fifth of the cash price followed by 30 equal monthly payments.

How much will Liam pay each month?

16 (calculator)

Below is the summary part of Geetha's Credit Card statement at the end of May.

Briggs Bank

CREDIT CARD STATEMENT

Summary as at 21 May 2011

Credit Limit	£4000
Available Credit	£3760
Balance from previous statement	£0-00
New Transactions	£240-00
Interest	£0-00
Balance owed	£240-00
Minimum payment due	£7-20
Payment due date	15 June 2011

Interest will be charged at 1% per month on any outstanding balance.

Geetha pays the minimum payment.

She does not use the credit card again.

What is the "Balance owed" in her next statement?

17 (calculator)

Susan has £6200 in her Clydeside Bank account.

Clydeside bank pays interest at 2.5% per annum.

Highland Bank pays interest at 3.7% per annum.

How much more money would Susan get in interest if she moved her £6200 to the Highland Bank for one year?

18 (calculator)

For the set of data:

1, 3, 4, 7, 7, 9, 13

Calculate:

- The median and upper and lower quartiles
- The semi-interquartile range.

19 (calculator)

a) The pulse rates, in beats per minute, of 6 adults in a hospital waiting area are:

68 73 86 72 82 78

Calculate the mean and standard deviation of this data.

b) 6 children in the same waiting area have a mean pulse rate of 89.6 beats per minute and a standard deviation of 5.4.

Make two valid comparisons between the children's pulse rates and those of the adults.

20 (non-calculator)

A furniture maker investigates the delivery times, in days, of two local wood companies and obtains the following data.

Company	Minimum	Maximum	Lower Quartile	Median	Upper Quartile
Timberplan	16	56	34	38	45
Allwoods	18	53	22	36	49

a) Draw an appropriate statistical diagram to illustrate these two sets of data.

b) Given that consistency of delivery is the most important factor, which company should the furniture maker use? Give a reason for your answer.

Homework Sheet 6

1 (non-calculator)

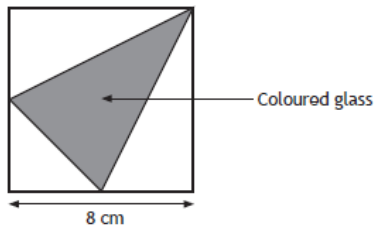
A charity had a stall at a fair selling crafts and cakes to raise money. The stall had sales worth £70.
The charity must pay 15% of the money from the sales to the organizers. The materials for the crafts and cakes cost £24.
What is the net amount of money raised?

2 (non-calculator)

Evaluate $\frac{3}{4} + \frac{1}{16}$

3 (non-calculator)

In a square plain glass panel, a designer wants to place a coloured triangular piece of glass as shown in the diagram below.



The triangular piece of coloured glass is formed from a corner of the square to the mid points of the opposite edges as shown in the diagram.
Calculate the ratio of the area of coloured glass to the area of plain glass.

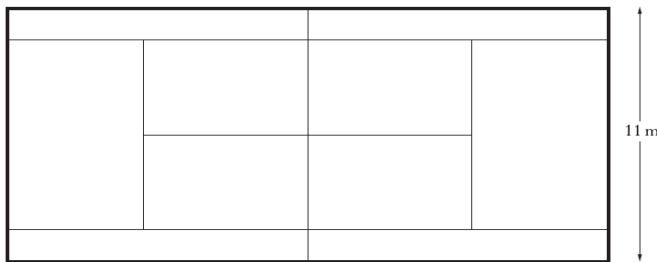
4 (non-calculator)

Alzena drove from Glasgow to Manchester Airport, 252 miles away. Alzena left Glasgow at 11.25pm. She arrived at Manchester Airport at 3.25am.

- How long did Alzena's journey take?
- Calculate her average speed in miles per hour for the journey.

5 (calculator)

A tennis court is 11 metres wide.
It has an area of 264 square metres.



Calculate the perimeter of the tennis court.

6 (calculator)

A 2 litre bottle of undiluted orange juice has to be mixed with 4 times the amount of water.
The orange juice is diluted and then poured into cylindrical glasses with a radius of 4cm and a height of 10cm.

- If a space of 1cm is left at the top of each glass, how many pupils will be able to get a glass of orange juice?
- If all of the diluted juice is poured into 25 of these cylindrical glasses so that each contains the same amount, what depth of orange juice will be in each glass?
Write your answer to the nearest centimetre.

7 (non-calculator)

The number of hours of sunshine was recorded daily in a city during a three-week period in June.
The results are shown in the stem and leaf diagram below.

0	8	
1		
2	1 3	
3	2 5 7	
4	1 5 7 8	
5	2 3 6	$n = 21$
6	0 2 2	
7	1 1 3 7 9	$3 \mid 2$ represents 3.2 hours

Using the above diagram:

- Calculate the range;
- Find the median number of hours.

8 (calculator)

Ronaldo scored eight goals in eleven games.
Messi scored nine goals in thirteen games.
Who has the better scoring rate?

Homework Sheet 6

9 (non-calculator)

Jill is taking part in an orienteering competition. She starts at checkpoint A. She then runs due east for 900 metres to checkpoint B.

Checkpoint C lies on a bearing of:

- 055° from checkpoint A
- 320° from checkpoint B.

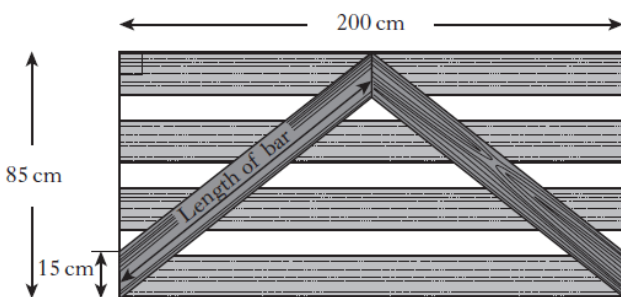
Using a scale of 1cm to 100m, illustrate this information on a scale drawing.

11 (calculator)

A wooden gate is 85 centimetres high and 200 centimetres wide.

The gate is strengthened by two bars which meet half-way across the gate as shown.

The ends of each bar measure 15 centimetres.

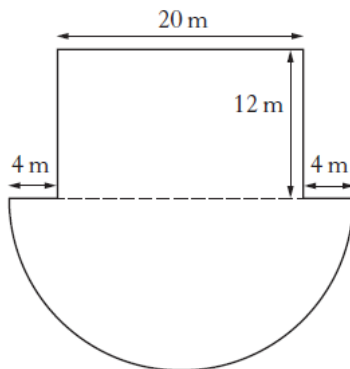


Calculate the length of **one** of the bars.

Do not use a scale drawing.

13 (calculator)

The floor plan of a concert hall is shown below.



The stage is a rectangle and the seating area is a semi-circle.

Calculate the total area of the stage and seating area.

Give your answer correct to the **nearest square metre**.

10 (non-calculator)

The rule for cooking a turkey is as follows:

"Cook it for 16 minutes for every pound the turkey weighs plus an extra 20 minutes".

- How long will it take to cook an 8 pound turkey?
- If Miss Dawson starts cooking her $6\frac{1}{2}$ pound turkey at 4.30pm, when is the earliest she can eat it?
- Mr Reeman wants him and his family to eat their 11 pound turkey at 1600. What is the latest time he should begin to cook it?

12 (non-calculator)

Bradley decides to cycle from Kilsyth to the highest point of Tak-Ma-Doon Road.

- The horizontal distance between these two places is 4.5 kilometres.
 - Kilsyth is 70 metres above sea level.
 - The highest point of Tak-Ma-Doon Road is 320 metres above sea level.
- Calculate the average gradient between Kilsyth and the highest point of Tak-Ma-Doon Road. Give your answer as a fraction **in its simplest form**.
 - One part of the road has gradient $\frac{2}{25}$. Is this steeper than the average gradient? You must justify your answer.

14 (non-calculator)

Jill earns £24,300 per annum. She has a personal tax allowance of £8130. She pays tax at the basic rate of 20%.

- Calculate how much tax she must pay each year.
- Jill also pays £166.08 per month in National Insurance and £100 per month into her pension.
 - Calculate Jill's total monthly deductions.
 - Calculate Jill's monthly take home pay.

Homework Sheet 6

15 (calculator)

Part of Wendy's credit card statement is shown below.

Credit Limit = £1000	
Balance from previous statement	£25.78
Interest	£2.24
Cliff Petrol Station	£36.45
Save More Supermarket	£64.17
H R Brown	£13.25
Total Balance	£A
Minimum repayment	£B
Minimum repayment = 2.5% of balance or £5, whichever is greater	

Calculate the values of A and B.

17 (non-calculator)

Crisps are sold in multipacks of 6, 12, or 22 packets costing £1.68, £3.00 or £4.68 respectively.

- What multipack offers the best value for money?
- There is a special offer on the 6 packet multipack where you can buy 3 multipacks for £4. Is this offer better value for money compared to your answer in (a).

19 (calculator)

An athlete without a coach records the following times (in seconds) in a series of 400 metre races.

47.8 48.3 50.2 49.5 46.9 49.5

The same athlete then decides to train with an athletics coach.

After training with the coach, the athlete runs a series of races which produces a mean of 49.3 seconds and a standard deviation of 0.23.

- For the athlete's times without a coach, calculate:
 - the mean;
 - the standard deviation.
- Make two valid comparisons about the performance of the athlete before and after training with the coach.

16 (non-calculator)

Below is a copy of Marta Ronaldo's credit card statement.

Western Bank Finance

Name: Marta Ronaldo
Date: 18th May 2014

Account No 1950 2114
Credit limit: £1500
Interest rate: 2% per month

Please ensure your payment arrives by 30th May 2014

18 April 2014	Balance brought forward	370.58	
24 April 2014	Payment – Thank you		– 50.00
		320.58	
	Interest (at 2%)	6.41	
6 May 2014	Mi Esposa Gowns	440.00	
10 May 2014	Las Tapas Deliciosas	52.60	
12 May 2014	Briggs Service Station	35.01	
	Balance owed	854.60	

Minimum payment: 5% of balance owed or £20, whichever is greater.

Note: Interest is charged each month on outstanding balance after payment is deducted.

Marta makes the minimum payment.

How much is the minimum payment?

18 (non-calculator)

John and Steven are playing snooker. They play eight games. Shown below are the number of points John scored in each game.

21 39 22 53 45 19 43 46

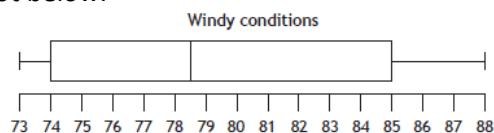
- Find the median.
- Find the range.
- The median number of points Steven scored is 23 and the range is 15.

Make **two** comments comparing the number of points scored by Steven and John.

20 (non-calculator)

Juma recorded his golf scores over the year. He played 12 times in windy conditions and 12 times in calm conditions.

The data for the windy conditions are illustrated in the box plot below.



His scores for the calm conditions are shown in the table below.

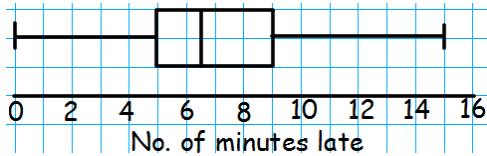
Calm conditions

70	68	73	70
67	78	74	73
74	76	78	76

- Construct a box plot to illustrate the data for Juma's golf scores in calm conditions.
- State a valid comparison between the scores for the windy and calm conditions.

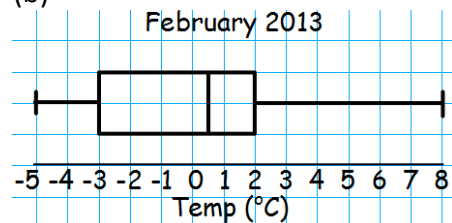
HOMEWORK 1

1. Price has fallen by £8829.12
2. $8\frac{7}{24}$
3. (a) 100g (b) 2 cakes
4. 5.715km
5. Area of damaged pane = 471cm^2
6. (a) $V = 113.04\text{cm}^3$ (b) $r = 3.8\text{cm}$
7. Pasta = 150° , Baked Potato = 200° , Salad = 10°
8. (a) $\frac{1}{5}$ (b) $\frac{3}{7}$
9. 3.75m
10. $R = 1.32$
11. The wood is long enough as $220\text{cm} > 216.91\text{cm}$
12. (a) Yes as $\frac{1}{16} < \frac{1}{12}$ (b) Yes as $500\text{mm} < 760\text{mm}$
13. Total area = 5.2cm^2
14. 5 hours overtime
15. 36% loss
16. Cost of loan = £1016.40
17. (a) PAYG £28, Monthly £30 (b) 225 minutes
18. (a) $\frac{4}{21}$ (bi) 58 (bii) 46.5 (biii) 69
(c) SIQR = 5.5
19. (a) mean = 116 (b) s.d. = 16.3
20. (ai) 6.5 (aii) 5 (aiii) 9
(b)



HOMEWORK 2

1. £148000
2. 360g
3. 8 tins
4. Yes, as $15\text{mph} < 20\text{mph}$.
5. Total area = 177cm^2
6. $V_{\text{cone}} = 566.04\text{cm}^3$ $V_{\text{cyl}} = 550.91\text{cm}^3$
The cone is better value as the volume is greater.
7. $P = £11$
8. (a) $\frac{3}{25}$ (b) $\frac{7}{24}$
9. (a) Min = 5.8cm $V = 195.11\text{cm}^3$
Max = 6.2cm $V = 238.33\text{cm}^3$
(b) min = 0.59g min weight = 115.11g
10. 25m
11. Perimeter = 13.44cm
12. (a) Yes as $895.8\text{mm} < 900\text{mm}$
(b) No as $0.11 > 0.10$
13. Area = 1123cm^2
14. £9.36 per hour of overtime
15. Installment = £112.35
16. Finesave, without payment protection.
17. Mortgages Direct £12398, Leading Mortgage £12596.40. Mortgages Direct are better value by £198.40
18. (a) Mean = 20160 (b) Median is more representative as 4/5 of the values vary less from this than they do from the mean.
19. (a) mean = 41, s.d. = 2.1
(b) yes, because the mean lies between 38 and 42 and the standard deviation is less than 3.
20. (ai) median = 0.5 (aii) $Q_1 = -3$
(aiii) $Q_3 = 2$
(b)



- (c) The average temperature in 2014 is higher than 2013 because the median is higher. The range of temperatures in 2014 is slower than that of 2013.

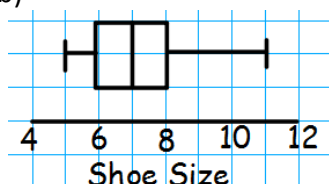
HOMEWORK 3

1. £148000
2. $4\frac{4}{35}$
3. (a) 3.575kg (b) 3 bags of flour
4. 0155
5. 306cm
6. (a) $V = 106\text{cm}^3$ (b) $H = 17.4\text{m}$
7. (a)

2	7	8	9						
3	0	1	2	3	4	6	6	8	9
4	1	2	4	5	6				
5	0	3	4						
6	2								

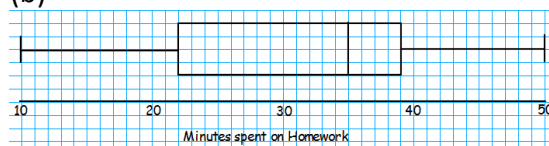
Key: 2|7 means 27
n = 21

- (b) 38 (c) 35
8. $\frac{1}{4}$
 9. 117.1g should be rejected.
 10. (a) $a = 144$ (b) $n = 9$
 11. 34cm
 12. Rule 1: 540mm does not lie between 610mm and 640mm. Rule 2: $m=0.57$ which is not less than $\frac{1}{2}$. The staircase does not meet either requirement.
 13. Area = 237.12m^2
 14. 3 hours overtime.
 15. £128
 16. Peter pays £1952.
 17. (a) £556 (b) Pete's PC Shop costs £614.92. Cheaper from The Big Computer Shop.
 18. (a) 59 (b) 44 (c) Shoppers spend more on average in Aldi (higher median). The spread of amounts spent in Aldi is smaller as the range is lower.
 19. (a) mean = 7 s.d. = 3.96 (b) On average the mean score was much higher the following season as $27 > 7$. The teams scoring was also more consistent is the new season as the standard deviation is lower.
 20. (ai) 7 (aii) 6 (aiii) 8



HOMEWORK 4

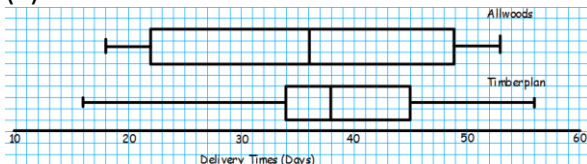
1. Interest = £9625.93
2. 350
3. (a) 9 teachers (b) 75 pupils
4. 220km
5. 42cm of wire
6. Volume = 1021.55mm^3
7. Have this marked by your teacher.
8. (a) $\frac{1}{10}$ (b) $\frac{1}{40}$
9. (49 ± 7) mins (b) $(49 \pm 14.3\%)$
10. $A = 72$
11. Screen size is 39.12cm
12. Yes, new regulations are satisfied as $0.225 < 0.26$
13. Total area = 28m^2
14. Net pay = £1383.71
15. 12%
16. (a) AU\$3160 (b) £1 = AU\$1.55
17. Saving = £56.80
18. (a) $Q_1 = 1.83$ (b) IQR = 0.14
19. (a) mean = 82, s.d. = 3.5 (b) mean = 102, s.d. = 3.5
20. (ai) median = 35 (aii) $Q_1 = 22$ (aiii) $Q_3 = 39$



(c) The average time spent on homework is higher for 4th years as the median is higher (42 mins compared to 35 mins). The time spent on homework for 4th years is more consistent as the range is smaller.

HOMEWORK 5

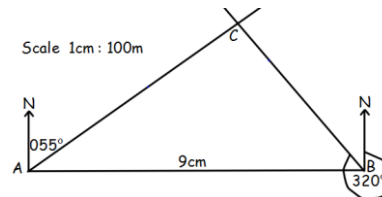
1. 24.8°C
2. $4\frac{3}{10}$
3. 80g of sugar, 160g of butter.
4. Brian is 10 minutes faster.
5. 3 Litres of paint to be bought.
6. 8 full glasses.
7. SNP 126° , Labour 108° , Liberal Democrats 54° , Conservative 36° , Others 36° .
8. $P(\text{school}) = 0.0125$ $P(\text{church}) = 0.0111$ better chance of winning at the school.
9. Min speed 10.03 m/s
Max speed 10.08 m/s
10. $S = 55$
11. Area = 240m^2
12. (a) 4.3m (b) The escalator does not meet the regulations as the gradient = 1.67 which is greater than 1.45.
13. (a) $C = 6.28\text{m}$
(b) Yes because $37.68\text{m} < 40\text{m}$.
14. $\pounds 3428$
15. Monthly payment = $\pounds 10.20$
16. Balance owed = $\pounds 235.13$
17. Difference = $\pounds 74.40$
18. (a) $Q_1 = 3, Q_2 = 7, Q_3 = 9$ (b) $\text{SIQR} = 3$
19. (a) mean = 76.5 s.d. = 6.75 (b) The average pulse rate of the children is higher than that of the adults as the mean is higher. The children's pulse rates vary less from the mean as the standard deviation is lower.
20. (a)



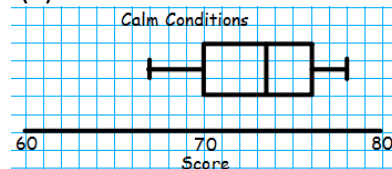
(b) Allwoods would be the best company to use as the average delivery time is shorter (smaller median) and the range of delivery times is shorter.

HOMEWORK 6

1. Amount raised = $\pounds 35.50$
2. $\frac{13}{16}$
3. 3 : 5
4. (a) 4 hrs (b) 63mph
5. L = 24m (b) 22 glasses
6. $h = 8\text{cm}$
7. (a) range = 7.1 hrs
(b) median = 5.2 hrs
8. Ronaldo has a better scoring rate as $0.73 > 0.69$
- 9.



10. (a) 2 hrs 28 mins (b) 6.34pm (c) 1244
11. 122.07cm
12. (a) Gradient = $\frac{1}{18}$
(b) This is steeper as $0.08 > 0.055$
13. Area = 548m^2
14. (a) $\pounds 3234$ (bi) $\pounds 535.58$ (bii) $\pounds 1489.42$
15. A = $\pounds 141.89$ B = $\pounds 5$
16. $\pounds 42.73$ (5% is minimum payment)
17. (a) The 22 multipack as it is 21p per packet of crisps compared to 25p and 28p.
(b) No, the 22 multipack is still cheaper per packet of crisps by 1p.
18. (a) median = 41 (b) range = 34
(c) John has a higher average score (higher median) but Steven is more consistent as his range is lower.
19. (a) mean = 48.7 s.d. = 1.24
(b) The athletes average race time without a coach was faster as the mean was lower. The athletes race times were more consistent with the coach as the standard deviation is lower.
20. (a)



(b) Juma's average score was higher in windy conditions as the median score is higher. Juma's scores in calm conditions are more consistent.

Comment Page

This page will be used by teachers and parents/carers to comment on personal revision, attendance at supported study, homework quality and overall progress with the National 5 Lifeskills Course. All comments must be signed.

<u>Date</u>	<u>Personal Revision</u>	<u>Supported Study</u>	<u>Homework Quality</u>	<u>Other Comments</u>	<u>Signature</u>