

National 4 Added Value Unit

Practice Paper A 2014-15

Part 2

Question	Points of Process or Accuracy	Expected responses
1	<ul style="list-style-type: none"> • Correct gathering of x terms • Correct gathering of number terms • Correct solution 	<ul style="list-style-type: none"> • $6x$ • $6x = 6$ • $x = 1$
Correct answer only award 1/3		
2	# Overall strategy <ul style="list-style-type: none"> • Finds area of square • Correct radius for circle • Finds area of circles • Shaded area found 	# Evidence of composite area including finding radius of circle <ul style="list-style-type: none"> • $3.6 \times 3.6 = 12.96$ • $r = 0.45\text{cm}$ • 3.17925cm^2 [using 3.14] • 9.78 cm^2 [accept any rounding]
Correct answer only award 1/4 (operational mark)		
3(a)	<ul style="list-style-type: none"> • Table completed 	<ul style="list-style-type: none"> • 5, 15, 95
(b)	<ul style="list-style-type: none"> • Evidence of multiplier • Correct formula 	<ul style="list-style-type: none"> • Evidence of $\times 5$ • $S = 5P - 5$
(c)	# equate to 50 <ul style="list-style-type: none"> • Solve 	# $5P - 5 = 50$ <ul style="list-style-type: none"> • Number of side panels = 11
4	<ul style="list-style-type: none"> • Correct time in hours • Correct use of formula • Correct calculation and rounding 	<ul style="list-style-type: none"> • 3.75 hours • 7×3.75 • 26 miles
Correct answer only award 1/3		
5	# Correct strategy <ul style="list-style-type: none"> • Correct Pythagoras statement • Correct side • Length of 2 diagonals • Total length found 	# finds diagonal using Pythagoras' theorem, multiplies then adds 2 lengths and 2 breadths <ul style="list-style-type: none"> • $15^2 + 9^2$ • 17.5 [any rounding] • 35cm • $35 + 30 + 18 = 83\text{cm}$
Correct answer only award 1/4 (operational mark)		
6	<ul style="list-style-type: none"> • Know to use tangent ratio • State correct ratio • Calculate height # valid conclusion	<ul style="list-style-type: none"> • $\tan x^\circ$ • $\tan 64^\circ = x/0.9$ • 1.85 metres [any rounding] # swing safe since $1.85 < 1.9$
Correct answer only award 0/3 and # 0/1		

7(a)	<ul style="list-style-type: none"> • 4 points plotted on grid • Further 2 points plotted on grid 	<ul style="list-style-type: none"> • Points plotted correctly • Points plotted correctly
(b)	<ul style="list-style-type: none"> • Line of best fit drawn 	<ul style="list-style-type: none"> • Acceptable line drawn
(c)	# correct conclusion	# conclusion must be valid for line of best fit drawn
8	<ul style="list-style-type: none"> • Probability for raffle one • Probability from raffle two # correct conclusion with reason	<ul style="list-style-type: none"> • $P = 6/300 = 1/50$ • $P = 8/360 = 1/45$ # Kate is correct since $1/45 > 1/50$ [accept any valid explanation]
Correct answer only award 0/2 and #0/1		

Total process and accuracy points for this test: 39

Total reasoning points for this test: 8