Friday 4's National 5 – no.4

Aaron saves 50 pence and 20 pence coins in his piggy bank.

Let x be the number of 50 pence coins in his bank.

Let y be the number of 20 pence coins in his bank.

(a) There are 60 coins in his bank.

Write down an equation in x and y to illustrate this information. **1**

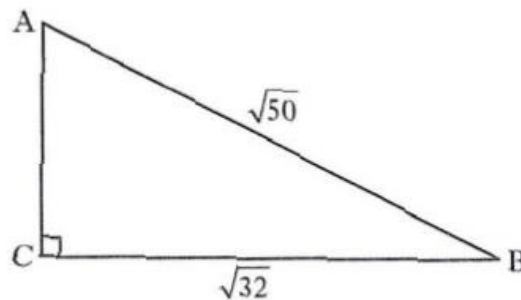(b) The total value of the coins is £17·40.

Write down another equation in x and y to illustrate this information. **1**

(c) Hence find **algebraically** the number of 50 pence coins Aaron has in his piggy bank. **3**

A right angled triangle has dimensions as shown.

Calculate the length of AC, leaving your answer as a surd **in its simplest form**. **3**

Factorise fully

$$5x^2 - 45.$$ **2**

$$P = \frac{2(m-4)}{3}$$

Change the subject of the formula to m. **3**