

ALGEBRA IN CONTEXT PRACTICE

①

- (a) Adrian has x pence.
Cheryl has 10 pence more than Adrian.
Write down, in terms of x , the number of pence that Cheryl has.

.....
[1]

- (b) A shirt has 8 buttons.
Write down, in terms of y , the number of buttons on y shirts.

.....
[1]

- (c) A ruler is r cm long.
Write down, in terms of r , the length of a line which is 6 cm shorter than the length of the ruler.

.....
[1]

②

- (a) Stan's printer prints 8 copies per minute.
Julia's printer prints 11 copies per minute.

Stan's printer prints for x minutes.

- (i) Write down, in terms of x , the **number of copies** that Stan's printer prints in these x minutes.

.....
[1]

- (ii) Julia's printer prints for 4 minutes less than Stan's printer.
Write down, in terms of x , the **number of minutes** for which Julia's printer prints.

.....
[1]

- (iii) Write down, in terms of x , the **number of copies** that Julia's printer prints.

.....
[1]

③

- (a) Peter buys x sweets and Mary buys 6 sweets.
Write down, in terms of x , the total number of sweets they buy.

.....
[1]

- (b) Rulers cost 25 pence each.
Write down, in terms of y , the cost of y rulers.

.....
[1]

- (c) A car is b metres long and a second car is 2 metres shorter than it.
Write down, in terms of b , the length of the second car.

.....
[1]

4

(a) A number is represented by the letter k .
Write down, in terms of k ,

(i) the number that is 5 more than k ,

.....

(ii) the number that is 4 less than k ,

.....

(iii) the number that is 3 times k ,

.....

(iv) the number that is 7 more than 10 times k .

.....

[4]

5

(a) Jack has x pence.
Jill has 8 pence less than Jack.
Write down, in terms of x , the number of pence that Jill has.

.....

[1]

(b) A box weighs 70 grams.
Write down, in terms of b , the weight of b boxes.

.....

[1]

6

The length of a piece of wood is $2x + 1$ centimetres.
A second piece of wood is $3x$ centimetres longer than the first piece of wood.

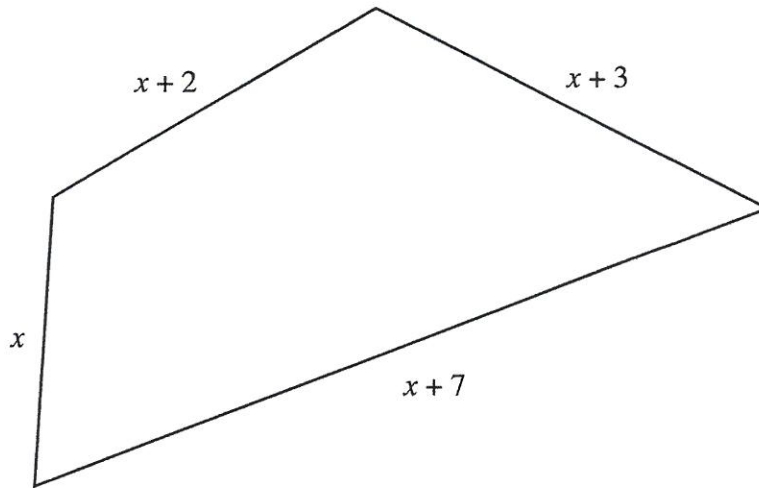
Write down in terms of x the length of the second piece of wood.

Length = centimetres

[1]

7

The diagram shows a quadrilateral.
The lengths of the sides are all given in centimetres.



(a) Write an expression for the perimeter of the quadrilateral in terms of x .

..... [1]

(b) (i) The perimeter of the quadrilateral is 40 cm.
Write down an equation in terms of x .

.....

(ii) Solve the equation.

.....

..... [2]

(c) Write down the lengths of the four sides of the quadrilateral.

..... [1]