

Algebra test

Question 1 – Calculate the following:

- a) $1 - 7 =$
- b) $-2 + 9 =$
- c) $-5 - 0 =$
- d) $-5 - 5 =$
- e) $6 - 6 =$

(5 marks)

Question 2 – Calculate the following:

- a) $7 \times 9 =$
- b) $+9 \times +2 =$
- c) $-2 \times 71 =$
- d) $-2 \times -80 =$
- e) $7 \times -1 =$

(5 marks)

Question 3 – Simplify the following algebraic expressions:

- a) $X + X + X + X + X =$
- b) $5P - 2P =$
- c) $T \times 3 + 1 =$
- d) $V \times V =$
- e) $K \div 5 + 2$

(4 marks)

Question 4 – Substitute $W=9$ into the following expressions:

- a) $W + 2$
- b) $3W - 2$
- c) $W^2 + 1$

(3 marks)

Question 5 – I am thinking of a number. I times it by 3 and subtract 2.

- a) Use a number machine to show this function.
- b) Write this as an algebraic expression.
- c) If the answer I get is 16, what was the number I was thinking of?

(3 marks)

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Question 6 – I am thinking of a number. I add 7 and then divide the answer by 2.

- d) Use a number machine to show this function.
- e) Write this as an algebraic expression.
- f) If the answer I get is 16, what was the number I was thinking of?

(3 marks)

Question 7 – Jane has x sweets. Paul has 5 more than Jane. John has 4 more than Jane.

- a) Write algebraic expressions for the three people in terms of x .
- b) If they have 39 sweets in total, how many sweets does each person have?

(6 marks)

Question 8 – Write two differences between an expression and an equation.

(2 marks)

Question 9 – The width of a rectangle is w . The length is three times as big as the width. If the perimeter of the rectangle is 48cm, what is the width of the rectangle?

(3 marks)

TOTAL: 35 marks