

Topic 1 Algebra 1 (Post-TT) [20]

1.

Circle the expression that is equivalent to $2a + 5a \times 4a - a$

[1 mark]

$$a + 20a^2$$

$$21a^2$$

$$28a^2 - a$$

$$2a + 15a^2$$

2.

$$P = 3(6a + b)$$

Work out the value of P when $a = -2$ and $d = 7$.

(Total 2 marks)

3.

Factorise $7x + 14$

(1)

(Total 1 marks)

4.

(a) Simplify $2x + 3y + 5x - 2y - 4x$

(2)

(b) Multiply out

(i) $4(m - 1)$

(1)

(ii) $p(p + 3)$

(1)

(Total 4 marks)

5.

$$y = 4x^2$$

Work out the value of y when $x = -3$.

(Total 2 marks)

6.

Expand $4x(x^2 + 5)$

(2)

(Total 2 marks)

7.

Factorise $r^6 - 3r^4$

(1)

(Total 1 marks)

8.

Expand and simplify $(m + 7)(m + 3)$

(Total 2 marks)

9.

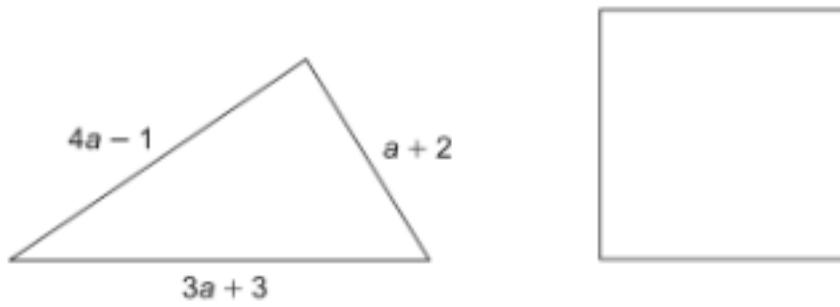
Factorise $5x^2 + 20x$

(1)

(Total 1 marks)

10.

The perimeter of the triangle is the same length as the perimeter of the square.



Find an expression for the length of one side of the square in terms of a .
Give your answer in its simplest form.

[Total 4 marks]