

QT Substitution

Non Calculator



1. Work out the value of $2x + 2y$ when $x = 6$ and $y = 7$

(2 marks)

2. Work out the value of $7a - 6b$ when $a = 8$ and $b = 5$

(2 marks)

3. $p = 12r - 8$

Find the value of p when $r = 3$

(2 marks)

4. $s = 0.5t + 4$

Find the value of s when $t = 0.5$

(2 marks)

5. $a = 5$

$b = 8$

Work out the value of $5a - 2b$

(2 marks)

6. $c = 6$

$d = -2$

Work out the value of $4c + 2d$

(2 marks)

7. $e = 8$

$f = -4$

Work out the value of $10e + 3f$

(2 marks)

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$$8. \begin{aligned} g &= -6 \\ h &= -3 \end{aligned}$$

Work out the value of $12g + 3h$

(2 marks)

$$9. \begin{aligned} j &= -4 \\ k &= -10 \end{aligned}$$

Work out the value of $8j - 4k$

(2 marks)

$$10. L = 7m - 4n$$

$$\begin{aligned} m &= 15 \\ n &= -3 \end{aligned}$$

Work out the value of L

(2 marks)

$$11. P = 12q + 3r$$

$$\begin{aligned} q &= 10 \\ r &= -10 \end{aligned}$$

Work out the value of P

(2 marks)

$$12. S = t(u - 4)$$

$$\begin{aligned} t &= 7 \\ u &= 4 \end{aligned}$$

Work out the value of S

(2 marks)

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13. $V = w(5 - x)$

$$w = 6$$

$$x = -2$$

Work out the value of V

(2 marks)

14. $X = 20yz$

$$y = 3$$

$$z = 2$$

Work out the value of X

(2 marks)

15. $a = 6$

$$b = -4$$

$$c = 2$$

Work out the value of $b^2 - 4ac$

(2 marks)

16. $a = 5$

$$b = 8$$

$$h = 4$$

Work out the value of $A = \frac{1}{2}(a + b)h$

(2 marks)

17. $y = mx + c$

$$m = -3$$

$$x = 8$$

$$c = -4$$

Work out the value of y

(2 marks)

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18. The cost of hiring a campervan is given by the formula $C = 150 + 25d$ where d is the number days the campervan is hired

- (a) Find the cost of hiring the campervan for 4 days.
(b) Work out the number of days the campervan was hired if the total bill was £325
(4 marks)

19. $s = ut + \frac{1}{2}at^2$

$$u = 3$$

$$t = 6$$

$$a = 4$$

Work out the value of s

(2 marks)

20. $s = ut + \frac{1}{2}at^2$

$$u = -5$$

$$t = 6$$

$$a = 8$$

Work out the value of s

(2 marks)

Total

/ 42 marks