

1  $T = 4v + 3$

(a) Work out the value of  $T$  when  $v = 2$

$T = \dots\dots\dots$   
(2)

(b) Make  $v$  the subject of the formula  $T = 4v + 3$

$\dots\dots\dots$   
(2)

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**(Total for Question 1 is 4 marks)**

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2 Make  $a$  the subject of the formula  $p = 3a - 9$

.....  
**(Total for Question 2 is 2 marks)**

3  $T = 4m^2 - 11$

(a) Work out the value of  $T$  when  $m = -3$

$T =$  .....  
(2)

(b) Make  $p$  the subject of the formula  $d = 3p + 4$

.....  
(2)

**(Total for Question 3 is 4 marks)**

4  $v^2 = u^2 + 2as$

$$u = 12 \quad a = -3 \quad s = 18$$

(a) Work out a value of  $v$ .

.....  
(2)

(b) Make  $s$  the subject of  $v^2 = u^2 + 2as$

.....  
(2)

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**(Total for Question 4 is 4 marks)**

5 (a) Solve  $3(x - 4) = 12$

$x = \dots\dots\dots$   
(2)

(b) Factorise fully  $9b - 3b^2$

$\dots\dots\dots$   
(2)

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**(Total for Question 5 is 4 marks)**

6 Make  $g$  the subject of the formula  $T = \sqrt{\frac{g+6}{2}}$

.....  
**(Total for Question 6 is 3 marks)**

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7 Make  $x$  the subject of the formula  $y = 2x + 4$

.....  
**(Total for Question 7 is 2 marks)**

8 (a) Make  $q$  the subject of  $p = 6q + 7$

.....  
(2)

(b) Simplify  $(m^{-2})^{-3}$

.....  
(1)

**(Total for Question 8 is 3 marks)**