

**Rearranging Formulae**

1. Make  $t$  the subject of the formula  $u = \frac{t}{3} + 5$

Answer  $t =$ .....  
(Total 2 marks)

2. Make  $x$  the subject of the formula

$$w = x^2 + y$$

Answer  $x =$  .....  
(Total 2 marks)

3. (a) You are given the formula  $y = \frac{5+x}{x}$

Rearrange the formula to give  $x$  in terms of  $y$ .

Answer  $x =$  .....  
(3)

(Total 3 marks)

4. Make  $x$  the subject of the formula

$$y = \frac{3x+4}{x-3}$$

Answer  $x = \dots\dots\dots$

(Total 4 marks)

5. Make  $u$  the subject of the formula  $s = \frac{1}{2}(u+v)t$

Answer  $u = \dots\dots\dots$

(Total 3 marks)

6. Rearrange  $y = \frac{xy+2}{3x-4}$

to make  $x$  the subject.  
Simplify your answer as much as possible.

Answer  $\dots\dots\dots$

(Total 4 marks)

7. Rearrange the formula  $3y + 2 = \frac{x+3}{x}$  to make  $x$  the subject.

Answer .....

(Total 4 marks)

8. The time taken for a pendulum of length  $l$  to make one full swing is given by the formula:

$$T = 2\pi \sqrt{\frac{l}{g}}$$

where  $g$  is the acceleration due to gravity.

Rearrange this formula to make the subject  $l$ .