



# Year 8 Mathematics

## Equations Practice Test 1

Name \_\_\_\_\_

1 Solve these one step equations

a)  $m + 17 = 28$       b)  $n - 12 = 10$       c)  $3p = 7$       d)  $\frac{m}{4} = 6$

2 Solve these two step equations

a)  $3m + 5 = 7$       b)  $\frac{a+3}{5} = 3$       c)  $10 - 3m = 25$       d)  $\frac{p}{3} - 6 = 15$

3 Solve

a)  $3a + 5 = 2a + 7$       b)  $5m - 3 = 2m + 9$       c)  $2 - 2x = 8 + x$

4 Expand the grouping symbols and then solve the equations

a)  $2(a + 4) = 10$       b)  $5(m - 3) = 3$       c)  $3(2m - 4) = 4m - 6$

5 Expand the grouping symbols and then solve the equations

a)  $3(m + 7) = 4(m - 2)$       b)  $3(x + 4) + 2(x - 5) = 4$

6 If  $P = 2L + 2B$  find P if  $L = 4$  and  $B = 3$

7 If  $v = u + at$  find v if  $u = 1.2$   $a = 0.5$  and  $t = 12.6$

8 If  $y = 3x - 2$  find x if  $y = 10$

9 If  $A = \frac{a+b}{2}$  find a if  $A = 7$  and  $b = 10$

10 The product of a certain number and 6 is 72. What is the number?

11 If a number is multiplied by 6 and 7 is subtracted from the product, the answer is 23. What is the number?

12 The sum of three consecutive integers is 30. What are the integers?

13 A rectangle is twice as long as it is wide. If the perimeter is 144 cm, what are the dimensions?

14 Find the value of x in this diagram

