Substitution

1. If \( d = 4 \) find the value of
   a) \( 2d \)  
   b) \( \frac{1}{2}d \)  
   c) \( 12 - d \)  
   d) \( 3d - 3 \)  
   d) \( d^2 \)  
   e) \( d + 5 \)  
   f) \( d - 2 \)  
   g) \( \frac{3d}{2} \)

2. If \( x = 5 \) find
   a) the length and breadth
   b) the perimeter of the rectangle
   c) the area of the rectangle

   \[ (2x - 1) \text{ cm} \]

   \[ (x + 1) \text{ cm} \]

3. If \( x = \frac{1}{2} \) find the value of
   a) \( x + \frac{1}{2} \)  
   b) \( 2x \)  
   b) \( 4x + 2 \)  
   b) \( 1 - x \)  
   b) \( x^2 \)

4. If \( a = 4 \) and \( b = 3 \) find the value of
   a) \( a + b \)  
   b) \( a - b \)  
   b) \( ab \)  
   b) \( a^2 + b \)  
   b) \( b^2 - a \)

5. If \( t = 3 \) find the value of \( t^2 + 3t + 2 \)

6. Find the value of \( 2y^2 \) when \( y = 5 \)

7. If \( x = 4 \) and \( y = 5 \) evaluate \( x^2 + 3y^2 \)

8. If \( a = 3b \) and \( b = 6 \) what is the value of \( a \)

9. If \( x = 5 \) and \( y = 2 \)
   a) Find the length of each side of the triangle
   b) What type of triangle is this?
   c) What is the perimeter of the triangle?

   \[ (2y + 3) \text{ cm} \]

   \[ (2x - y) \text{ cm} \]

   \[ (x + y) \text{ cm} \]

10. If \( y = 2x + 3 \) and \( x = 4 \) what is the value of \( y \)?

11. If \( a + b = 8 \) and \( b = 6 \) what is the value of \( a \)?

12. If \( A - a = 5 \) and \( a = 4 \) what is the value of \( A + a \)?