

1. Simplify the following:

(a)  $4x + 2y + 5x + 3y$

(b)  $2x + 6y + 3x + 5y$

(c)  $11x + 3y + 6x + 25y$

(6 marks)

2. A binary operation is defined by:

$$x * y = 3x - 2y$$

Find:

(a)  $6 * 4$

(b)  $7 * 5$

(c)  $3 * 6 * 4$

(8 marks)

3. Multiply the following:

$(2x-1)(3-x)$

(5 marks)

4. If  $x + 4 = 9$ , then what is the value of  $x$

(2 marks)

5. Factorize Completely

(a)  $16p + 2q$

(b)  $169a^2 - 13a$

(4 marks)

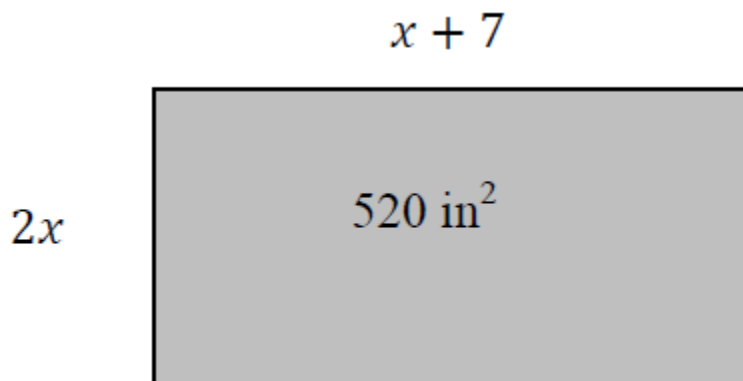
6. Solve the quadratic equations:

$$3x^2 - 27x + 54 = 0$$

$$x^2 - 3x + 20 = 8$$

(12 marks)

7. Find the dimensions of the rectangle,(Find the length and the width):



(9 marks)

**Total 46 Marks**