

$$5. (2x^2 + 7x + 1) + (x^2 - 2x + 8)$$

$$\begin{array}{r} \cancel{2x^2} + \cancel{7x} + \cancel{1} + \cancel{x^2} - \cancel{2x} + \cancel{8} \\ 3x^2 + 5x + 9 \end{array}$$

12. $(3x - y)(2x + 5y)$

$$3x(2x) + 3x(5y) - y(2x) - y(5y)$$

$$6x^2 + 15xy - 2xy - 5y^2$$

$$\underline{\underline{6x^2 + 13xy - 5y^2}}$$

12. $(3x - y)(2x + 5y)$

$$3x(2x) + 3x(5y) - y(2x) - y(5y)$$

$$6x^2 + 15xy - 2xy - 5y^2$$

$$\underline{\underline{6x^2 + 13xy - 5y^2}}$$

ern to find the product.

$$16. (4x+3)(4x-3)$$

$$16x^2 - 12x + 12x - 9$$


$$\underline{\underline{16x^2 - 9}}$$

19. $(3x+6)(3x+6)$ 20. (-

$$9x^2 + 18x + 18x + 36$$

$$\underline{\underline{9x^2 + 36x + 36}}$$

11. $-x^2(12x^3 - 11x^2 + 3)$

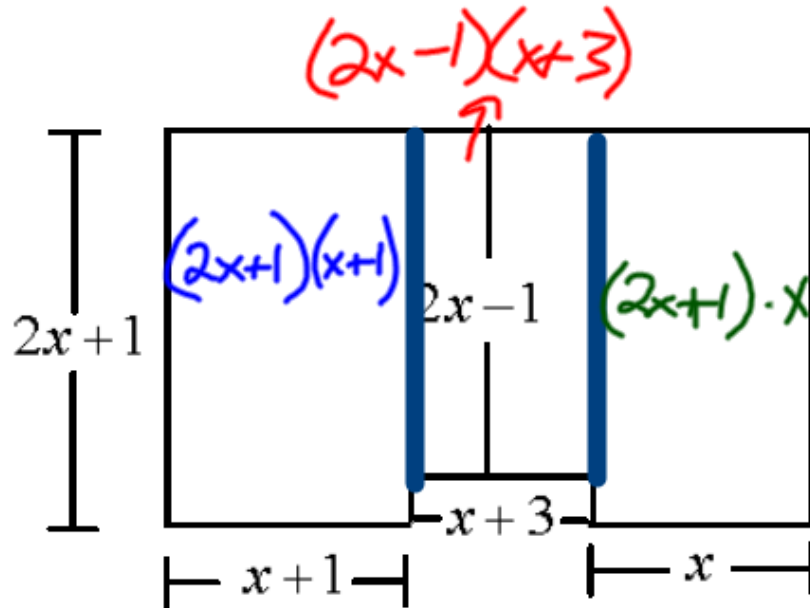


$-12x^5 + 11x^4 - 3x^2$

$$6. (-4x^3 - 5x^2 + 2x) - (2x^3 + 9x^2 + 2)$$

$$\begin{array}{r} \cancel{+4x^3} - \cancel{5x^2} + \cancel{2x} - \cancel{2x^3} - \cancel{9x^2} - \cancel{2} \\ \hline = -6x^3 - 14x^2 + 2x - 2 \end{array}$$

Write the expression in simplest form that represents the area of the figure below.



$$\begin{aligned}
 & (2x+1)(x+1) + (2x-1)(x+3) + (2x+1) \cdot x \\
 & \cancel{2x^2} + \cancel{2x} + \cancel{x} + 1 + \cancel{2x^2} + \cancel{6x} + \cancel{x} - 3 + \cancel{2x^2} + \cancel{x} \\
 & \underline{6x^2 + 9x - 2}
 \end{aligned}$$

1.86
2.43

15. $r^2 - 41r - 86$

$(r + 2)(r - 43)$

1.52
3.19

9. $n^2 + 16n - 57$

$(n - 3)(n + 19)$

Solve the equation by factoring.

16. $y^2 + 5y - 6 = 0$

$(y - 1)(y + 6) = 0$

$y - 1 = 0 \quad \text{or} \quad y + 6 = 0$
 $\begin{array}{c} +1 \quad +1 \\ \hline y = 1 \end{array} \quad \text{or} \quad \begin{array}{c} -6 \quad -6 \\ \hline y = -6 \end{array}$

$y = 1 \quad \text{or} \quad y = -6$