

5) $18x^2 + 2x^3$

6) $-p^3 + 11p^2$

7) $12x^4 - 2x^3 + 10x^2$

8)

9)

10)

11)

12)

17)

18)

19)

20)

21)

22)

23)

24)

Simplify each product.

1. $8m(m + 6)$

2. $(x + 10)3x$

3. $9k(7k + 4)$

4. $-5a(a - 1)$

5. $2x^2(9 + x)$

6. $-p^2(p - 11)$

7. $2x(6x^3 - x^2 + 5x)$

8. $4y^2(9y^3 + 8y^2 - 11)$

9. $-5c^3(9c^2 - 8c - 5)$

10. $-7q^2(6q^5 - 2q - 7)$

11. $-3g^7(g^4 - 6g^2 + 5)$

12. $-4x^6(10x^3 + 3x^2 - 7)$

Find the common factor of the terms of each polynomial.

13. $15w + 21$

14. $6a^2 - 8a$

15. $36v + 24$

16. $x^3 + 7x^2 - 5x$

17. $5b^3 + 15b - 30$

18. $9x^3 - 6x^2 + 12x$

Factor each polynomial.

19. $6x - 4$

20. $v^2 + 4v$

21. $10x^3 - 25x^2 + 20$

22. $2t^2 - 10t^4$

23. $15n^3 - 3n^2 + 12n$

24. $6p^6 + 24p^5 + 18p^3$

Please put your stuff in the back of the room.
All you need is a pencil.

| | |
|---|---|
| 1 | 2 |
| 3 | 4 |

1. Simplify

$$(5w^2 - 10w + w^3) - (2w^4 - 6w + 2w^2)$$

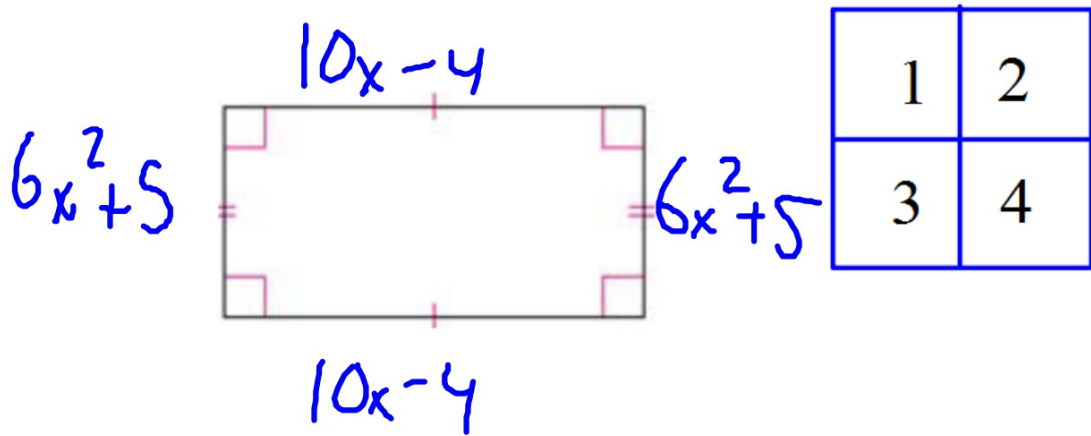
$$-2w^4 + w^3 + 3w^2 - 4w$$

| | |
|---|---|
| 1 | 2 |
| 3 | 4 |

$$(8u^3 + 5u^2 + 2) + (7u^3 - 8u + 2)$$

$$15u^3 + 5u^2 - 8u + 4$$

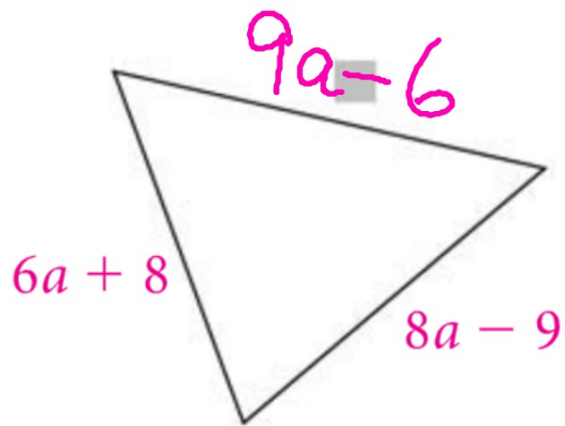
Write an expression for the perimeter of a rectangle with a length of $10x - 4$, and a width of $6x^2 + 5$.



$$20x + 12x^2 + 2$$

$$12x^2 + 20x + 2$$

$$\text{Perimeter} = 23a - 7$$

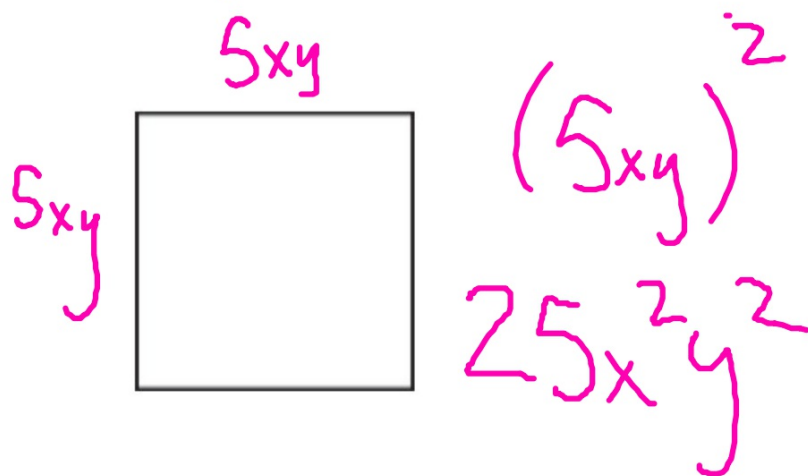


$$-7 + (+1)$$

| | |
|---|---|
| 1 | 2 |
| 3 | 4 |

$$\begin{array}{r} 23a - 7 \\ - 14a - 1 \\ \hline 9a - 6 \end{array}$$

Write an expression for the area of a square with a side of $5xy$.



| | |
|---|---|
| 1 | 2 |
| 3 | 4 |

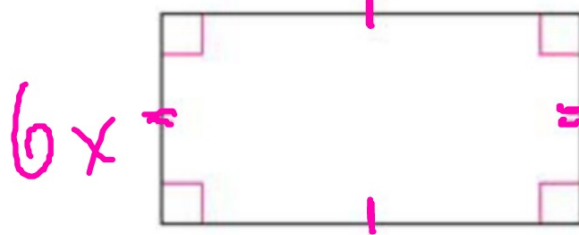
5. Write an expression for the area of a rectangle with a length of $2x^3 - 3x^2 + 4x - 10$

and a width of $6x$.

| | |
|---|---|
| 1 | 2 |
| 3 | 4 |

$$A = l \times w$$

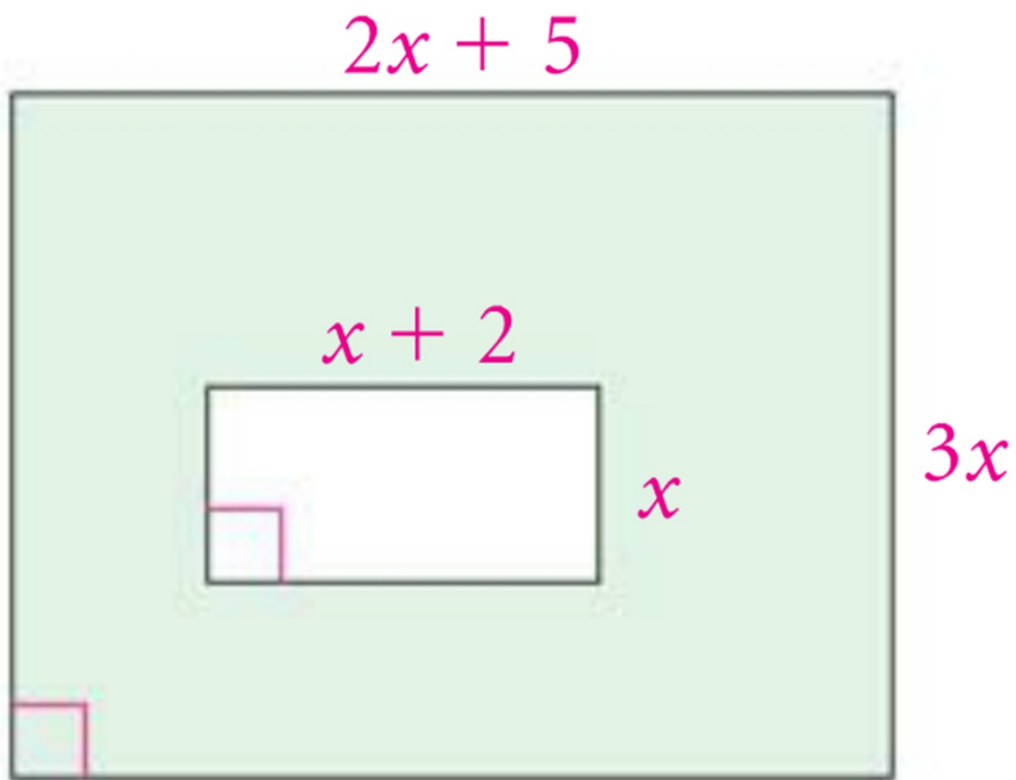
$$2x^3 - 3x^2 + 4x - 10$$



$$6x (2x^3 - 3x^2 + 4x - 10)$$

$$12x^4 - 18x^3 + 24x^2 - 60x$$

6. Write an expression for the shaded area.



| | |
|---|---|
| 1 | 2 |
| 3 | 4 |