

Find each sum or difference.

1. $(4a - 5) + (3a + 6)$
 $7a + 1$

3. $(7x^2 - 8) + (3x^2 + 1)$
 $10x^2 - 7$

5. $5a^2 + 3a^2x - 7a^3$
 $(+) 2a^2 - 8a^2x + 4$
 $7a^2 - 5a^2x - 7a^3 + 4$

7. $2x + 6y - 3z + 5$
 $4x - 8y + 6z - 1$
 $(+) x - 3y + 6$
 $7x - 5y + 3z + 10$

$(5x^2 - x - 7) + (2x^2 + 3x + 4)$
 $7x^2 + 2x - 3$

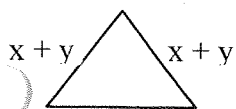
11. $(5x + 3z) + 9z$
 $5x + 12z$

13. $(5a^2x + 3ax^2 - 5x) + (2a^2x - 5ax^2 + 7x)$
 $7a^2x - 2ax^2 + 2x$

15. $(d^2 - d + 5) - (-d^2 + d + 5)$
 $2d^2 - 2d$

Find the measure of the third side of each triangle. P is the measure of the perimeter.

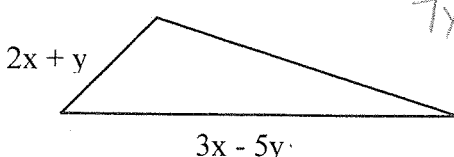
16. $P = 3x + 3y$



$3x + 3y - 2x - 2y$

$x + y$

17. $P = 7x + 2y$



$7x + 2y - (5x - 4y)$

$2x + 6y$

2. $(3p^2 - 2p + 3) - (p^2 - 7p + 7)$
 $3p^2 - p^2 - 2p + 7p + 3 - 7$
 $2p^2 + 5p - 4$

4. $(x^2 + y^2) - (-x^2 + y^2)$
 $x^2 + x^2 + y^2 - y^2$
 $2x^2$

6. $5x^2 - x - 4$
 $(-) -3x^2 - 8x + 7$
 $2x^2 - 9x + 3$

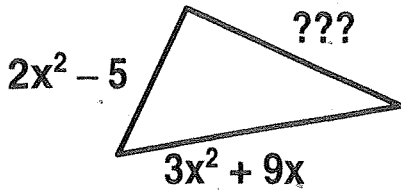
8. $11m^2n^2 + 2mn - 11$
 $(-) -5m^2n^2 + 6mn + 17$
 $6m^2n^2 + 8mn - 28$

10. $(5a + 9b) - (4b + 2a)$
 $5a + 9b - 4b - 2a$
 $= 3a + 5b$

12. $6p - (8q + 5p)$
 $6p - 8q - 5p$
 $p - 8q$

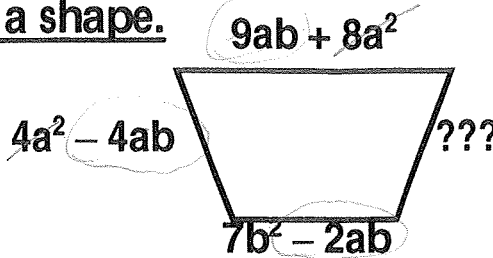
14. $(x^3 - 3x^2y + 4xy^2 + y^3) - (7x^3 - 9x^2y + xy^2 + y^3)$
 $x^3 - 3x^2y + 4xy^2 + y^3 - 7x^3 + 9x^2y - xy^2 - y^3$
 $-6x^3 + 6x^2y + 3xy^2$

Find the missing side of a shape.



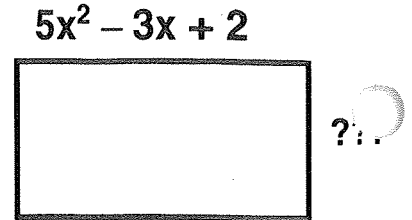
Perimeter $5x^2 + 9x - 5$
 $5x^2 + 7x + 12$

$-2x + 17$



Perimeter $12a^2 + 3ab + 7b^2$
 $9b^2 - 2ab + 12a^2$

$-5ab + 2b^2$



Perimeter $10x^2 - 6x + 4$
 $14x^2 + 4x - 8$

$= 4x^2 + 10x - 12$

 2

$= 2x^2 + 5x - 6$

Word Problems:

- 1) The measure of the perimeter of a triangle is $37s + 42$. It is known that two of the sides of the triangle have measures of $14s + 16$ and $10s + 20$. Find the length of the third side.

$37s + 42 - 14s - 16 - 10s - 20$
 $13s + 6$

- 2) A triangle has a perimeter of $10a + 3b + 12$ and has sides of length $3a + 8$ and $5a + b$, what is the length of the third side?

$8a + 8 + b$

$2a + 2b + 4$

- 3) For a rectangle with length of $3x + 4$ and perimeter of $10x + 18$, what is the width of the rectangle?

$2(3x + 4) - 6x - 8$
 $6x + 8$
 $4x + 10 / 2 = 2x + 5$

- 4) A rectangle has a perimeter of $12y^2 - 2y + 18$ and has a width of $4y^2 - y + 6$. What is the length of the rectangle?

$-8y^2 + 2y - 12$
 $2(4y^2 - y + 6)$
 $= 8y^2 - 2y + 12$
 $4y^2 + 6 / 2 = 2y^2 + 3$

- 5) Ross has $(8x - 5)$ tickets for Chuck E Cheese. He is going to play today and wants to buy a prize that is $(15x + 1)$ tickets. How many tickets must he win to have enough tickets to buy the prize?

$7x + 6$