

13.10.15

Algebra

Subtracting Polynomials Section 6.4 Pg. 310-311	Classwork: p. 311-12: 5, 7, 15, 18, 21, 24, 29a Homework: p. 311-12: 6, 8, 16, 17, 19, 20, 22, 23, 25, 26, 29b, 30
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**For The Love Of Humanity,
BE CAREFUL WITH YOUR
SIGNS!**

Recall the Distributive Property: $a(b+c) = ab + ac$

eg "drop the brackets" on
 $-1(3x^2 - 5x + 2) = -3x^2 + 5x - 2$

Examples: Pg. 311 - 312

Subtract.

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

⑤ Drop brackets, then collect like terms

$$\begin{aligned}
 &(3x - 5) - (x + 2) \\
 &= 3x - 5 - x - 2 \\
 &= 2x - 7
 \end{aligned}$$

$$\begin{aligned}
 &⑦ $(x + 4) - (-x - 3)$
 $= x + 4 + x + 3$
 $= 2x + 7$$$

Subtract.

15. $(2y^2 + 3y - 5) - (2y^2 + 4y + 6)$

$$= 2y^2 + 3y - 5 - 2y^2 - 4y - 6$$

$$= -y - 11$$

(Note: No need to write " $0y^2$ ")

Subtract.

18. $3x^2 + 7x - 3$ from $2x^2 - 2x + 3$

write out
the subtraction

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

$$= 2x^2 - 2x + 3 - 3x^2 - 7x + 3$$

$$= -x^2 - 9x + 6$$

collect
like
terms

this goes 1st!

CAREFUL!

Simplify.

21. $(-5n^2 - n - 8) - (-2n^2 + 7n - 3)$

$$= -5n^2 - 1n - 8 + 2n^2 - 7n + 3$$

$$= -3n^2 - 8n - 5$$

$$24. (x^2 + 5x + 3) - (-x^2 - 7x + 11)$$

$$= x^2 + 5x + 3 + x^2 + 7x - 11$$

$$= 2x^2 + 12x - 8$$

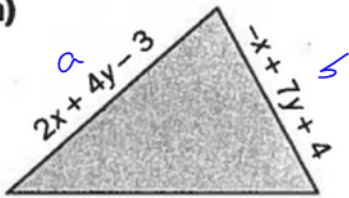
Pavlice - 3000.

Nick - 5×10^6

29. Measurement Given the perimeter, P , of a figure and two or three sides, find the missing side length.

This is a question of awesomeness!!

a)



$$P = 5x + 3y - 2$$

$$P = a + b + c$$

$$c = P - (a + b)$$

$$\begin{array}{l} \text{subtract} \\ \text{= all of } a \end{array} \quad c = P - a - b \quad \begin{array}{l} \text{use brackets} \end{array}$$

$$\Rightarrow c = 5x + 3y - 2 - (2x + 4y - 3) - (-x + 7y + 4)$$

$$= 5x + 3y - 2 - 2x - 4y + 3 + x - 7y - 4$$

$$= 4x - 8y - 3$$

therefore
↓

∴ The missing side length is $4x - 8y - 3$.