Do Now:

1) $24 = 4x$

2) $2x + 5 = 27$

3) $8x - 12x = 4$

Do Now: Copy this into your notes section of your notebook.

Drum lessons at the youth center cost $8 for members and $12 for nonmembers. Membership is $24. For what number of lessons is the cost the same for a member and a nonmember?

Members Nonmembers

$24 + 8\ell = 12\ell$

Opp. Sides Opp. Operation

$24 + 8\ell = 12\ell$

$-8\ell \quad -8\ell$

$\frac{24}{4} = \frac{4\ell}{4}$

$6 = \ell$

The cost will be the same at 6 lessons.

$24 + 8\ell = 12\ell$

$24 + 8(6) = 12(6)$

$24 + 48 = 72$

$72 = 72$

$72

Answers to the Workbook

1.	No; w = 2	14.	$109.10
4.	No; g = 13	15.	$11.25
5.	x = 4	16.	w = -15/8 = -1.875
7.	w = -3	17.	m = 0
9.	w = -6	18.	p = -2
11.	k = 31	19.	k = 332
13.	c = 11	20.	x = 43
		21.	x = 42

$-1\frac{7}{8}$

6.2 Solving Equations with Variables on Both Sides

7.NS
7.EE

- SWBAT solve equations that have variables on both sides.
- SWBAT represent and analyze situations using algebraic symbols.

Calculators: Yes

Drum lessons at the youth center cost $8 for members and $12 for nonmembers. Membership is $24. For what number of lessons is the cost the same for a member and a nonmember?

Books from a book club cost $7 for members and $10 for nonmembers. Membership is $15. For what number of books is the cost the same for a member and a nonmember?

Members: $15 + 7b$ = Nonmembers: $10b$

$15 + 7b = 10b$

$-7b \quad -7b$

$15 = 3b$

$\frac{15}{3} = \frac{3b}{3}$

$5 = b$

$15 + 7b = 10b$

$-10b \quad -10b$

$15 - 3b = 0$

$+3b \quad +3b$

$\frac{15}{3} = \frac{3b}{3}$

$5 = b$

It will be 5 books to have the cost be the same.

Solve:

$3x = x + 2$

$-x \quad -x$

$\frac{2x}{2} = \frac{2}{2}$

$x = 1$

$4x - 12 = 3x$

$-4x \quad -4x$

$-12 = -x$

$12 = x$

$4x - 12 = 3x$

$-3x \quad -3x$

$x - 12 = 0$

$+12 \quad +12$

$x = 12$

Solve.

1. 4p = 6p - 12

2. 63 + 11w = 4w

$5m + 18 = 15m - 24 - 4m$

$5m + 18 = 11m - 24$

$-5m \quad -5m$

$18 = 6m - 24$

$+24 \quad +24$

$\frac{42}{6} = \frac{6m}{6}$

$7 = m$

$-7q + 2 = 11q - 8q$

$-7q + 2 = 3q$

$+7q \quad +7q$

$\frac{2}{10} = \frac{10q}{10}$

$\frac{2}{10} = q$

$\frac{1}{5} = q$

$21x = 3(2x + 30)$

$21x = 6x + 90$

$-6x \quad -6x$

$\frac{15x}{15} = \frac{90}{15}$

$x = 6$

$2x - 6 = 4(5x + 12)$

$2x - 6 = 20x - 48$

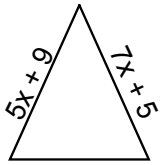
$-2x \quad -2x$

$-6 = 18x + 48$

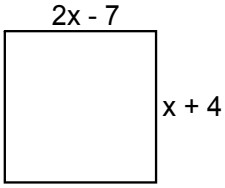
$-54 = 18x$

$-3 = x$

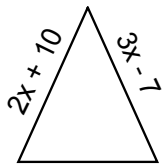
Each side of the triangle has the same length, find the perimeter.



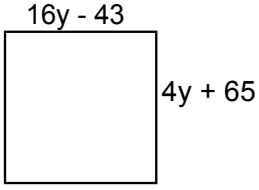
Two sides of a square are shown, find the perimeter.



Each side of the triangle has the same length, find the perimeter.



Two sides of a square are shown, find the length of one of the sides.



Exit Pass 6.2

To solve equations with variables on both sides, what do you do first?

"Don't blame the sea if you cannot catch a fish."

Working individually or with a partner, complete the workbook.

Workbook pg.

Reflection of Today's Lesson

6.2 Solving Equations with Variables on Both Sides

7.NS
7.EE

- SWBAT solve equations that have variables on both sides.
- SWBAT represent and analyze situations using algebraic symbols.

Calculators: Yes

Homework

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