

# Lesson 7.4 Skills Practice

(All Problems)

NAME \_\_\_\_\_

DATE \_\_\_\_\_

## Solving in Big-Time Style Using Two-Step Equations

STEPS:

a) SIMPLIFY FIRST: L.C.D., DIST. PROP., AND/OR  
COMBINE LIKE TERMS

b) DRAW RR TRACKS AND ISOLATE  
VARIABLE USING INVERSE OPS.

### Problem Set

Solve each equation using the Distributive Property.

1.  $6(x + 1) + 5 = 35$

$6(x + 1) + 5 = 35$

$6x + 6 + 5 = 35$

$6x + 11 = 35$

$6x + 11 - 11 = 35 - 11$

$\frac{6x}{6} = \frac{24}{6}$

$x = 4$

DIST  
PROP

SOLVE  
↓

COMBINE LIKE  
TERMS

2.  $-14 = -2(5 - x) + 16$

3.  $3(2x + 7) - 3x = 18$

4.  $0.7(x - 2) = 0.3$

5.  $1.95(6.2 - 3x) - 4.81 = -18.46$

6.  $28 = 14 + 7(x - 6)$

7.  $78 = -9x - 3(-56 + 12x)$

Bonus!

~~8.  $0.20x - 0.08(x - 10) = 24.80$~~

8.  $7(4x + 9) - 13 = 99$

Write an equation to represent each situation. Define your variables and solve the equation.

11. At the Namaste Yoga Studio, the first two yoga classes you take are free with your registration fee of \$15. Each class after that is \$45. How many classes can you take for \$1185?

$$1185 = 15 + 45(x - 2)$$

(Sub 2 FIRST SINCE THESE CLASSES ARE FREE)

Let  $y$  represent the total amount paid and  $x$  represent the number of classes taken.

~~$$1185 = 15 + 45x - 90$$

$$1185 = 45x - 75$$

$$1185 + 75 = 45x - 75 + 75$$

$$\frac{1260}{45} = \frac{45x}{45}$$

$$28 = x$$~~

$$1185 = 45x + 15 - 90$$

$$1185 = 45x - 75$$

$$+75 \quad +75$$


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$$1260 = 45x$$

$$\frac{1260}{45} = \frac{45x}{45}$$

$$28 = x$$

You can take 28 yoga classes for \$1185 dollars.

12. Clara has a coupon for \$10 off at her favorite clothing store. The coupon is applied before any discounts are taken. The store is having a sale, and offering 15% off everything. If Clara has \$50 to spend, how much can her purchases total before applying the discount and her coupon? Round to the nearest cent.

14. A party store uses 20% of a tank of helium a day and fills 80 balloons. Each balloon takes 0.5 cubic feet of helium to fill. How many cubic feet of helium are in a full tank?

15. Susana bought a laptop for \$500. It was marked \$50 off because it was out of the box and slightly scratched. She also got a 25% student discount, which was taken off of the original price. What was the original price of the laptop?

(Hint: if it's 25% off, what % do you pay?)