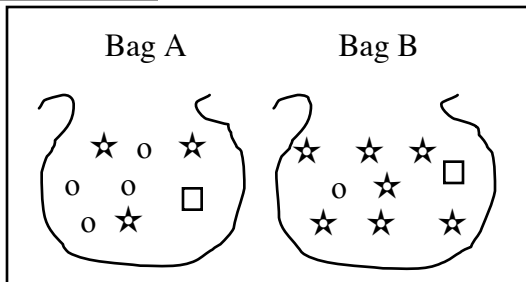


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Part 1

Write the fraction that tells your chances of pulling a star from each bag.



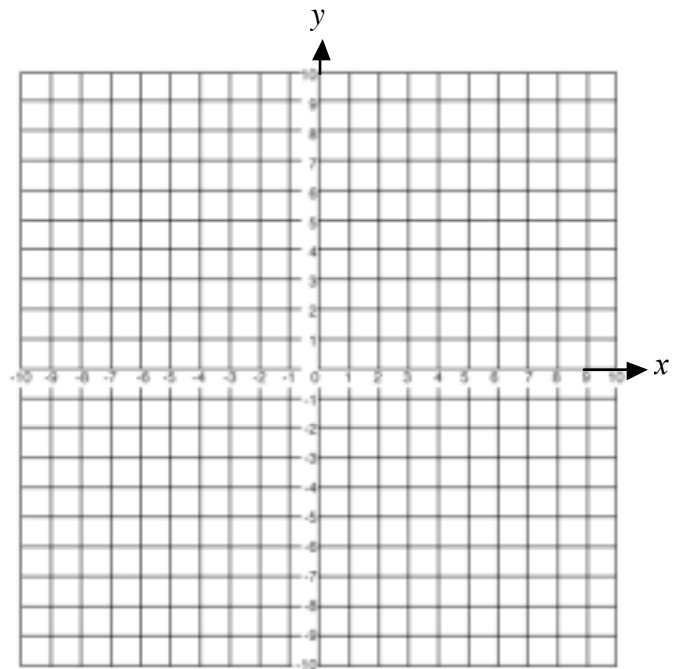
Bag B:	objects	trials
$\frac{\star}{\text{all}}$	$\frac{7}{9}$	$= \frac{7}{9}$

Part 2

Plotting Lines that Go through Zero

$$y = \frac{3}{2}x$$

- [D]
- Start at zero and plot a point based on the slope.
 - Draw a line through that point and through zero.



Part 3

Solve for both letters in each item.

a. $-2d + 5v = 51$
 $3d - v = -18$

b. $7 = r - 2p$
 $-19 = -3r + 5p$

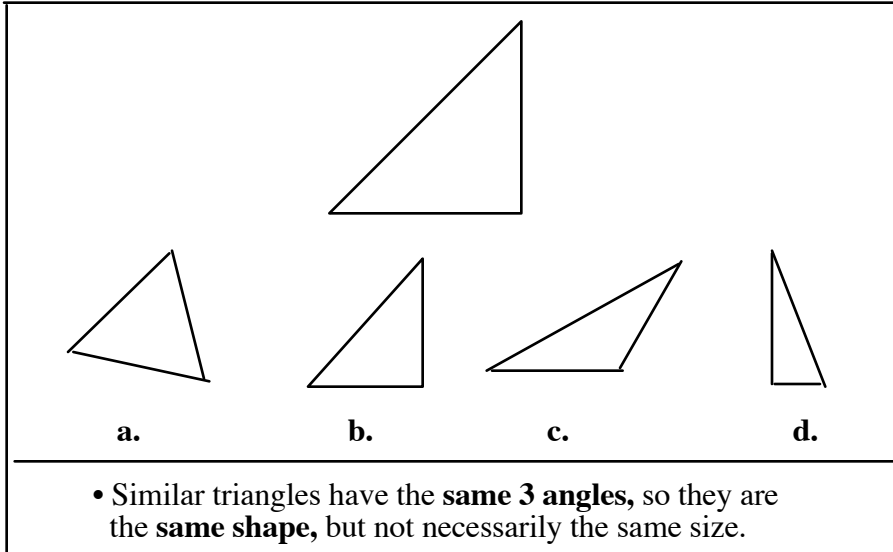
c. $-2x + y = 10$
 $3x - y = -10$

d. $6r - 20 = 2j$
 $2r - 16 = 3j$

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Part 4

Similar Triangles



- We can prove that triangles are similar if 2 angles are the same.
- For the shaded triangle, we have a 40° angle and a 90° angle.
- For the larger triangle, we have a 40° angle and a 90° angle.

• If you know that the triangles have 2 angles that are the same, you know that the third angle is the same.

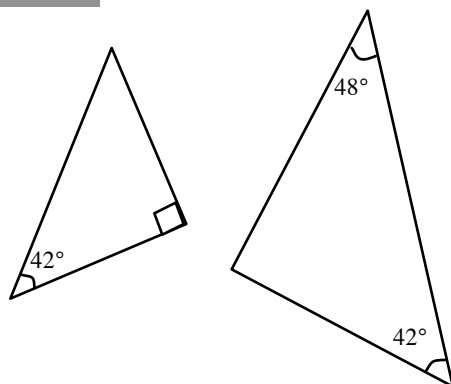
• So the triangles are similar.

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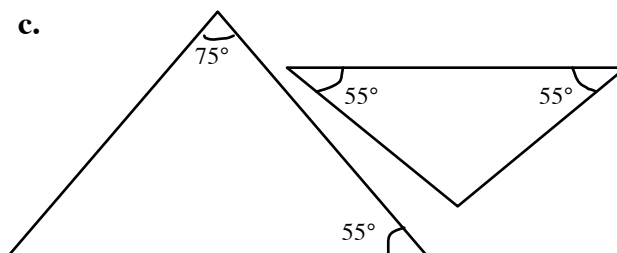
Part 5

For each pair of triangles, figure out whether the triangles are similar

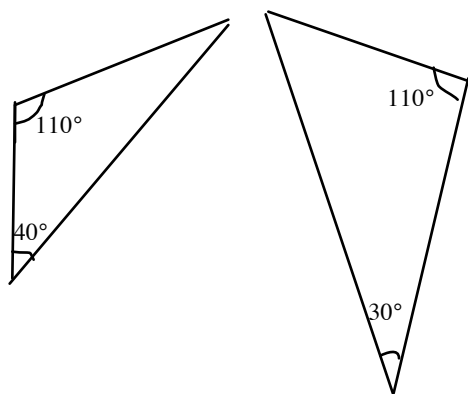
a.



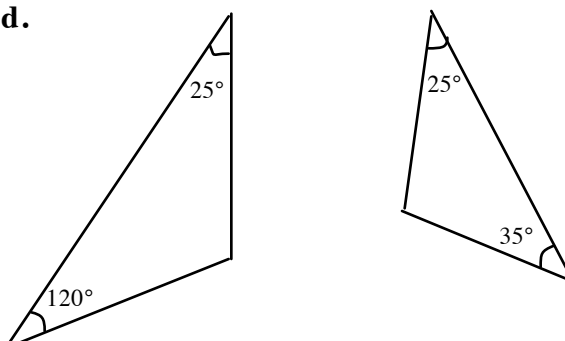
c.



b.



d.



Part 6

For each sentence, write an equation or an inequality. Then solve for n .

- a. 3 times a number is greater than the number minus 2.
- b. 2 times a number is 10 less than 4 times that number.
- c. 6 less than a number is greater than 2 times the number.
- d. 2 less than 3 times a number is 4 greater than 48.

Lesson 85 Independent Work

Part 7

Solve for the letter.

a. $-6 \left(\frac{1}{2}b + 6 - \frac{3}{2}b \right) = 3 + 3b$

b. $4b = (-1 + 10b) \frac{1}{2}$

Part 8

Work each problem.

- a. Sharon weighed 4 pounds less than $\frac{3}{4}$ of Tino's weight. Sharon weighed 101 pounds.
What did Tino weigh?

- b. $\frac{3}{8}$ of the students had their driver's license. There were 96 students in all. How many did not have their driver's license?

- c. The number of people on the train was 11 more than $\frac{3}{7}$ the number of people on the plane. There were 128 people on the train. How many people were on the plane?

- d. $\frac{3}{4}$ of the pile's weight came from gravel. The rest came from sand. The sand weighed 96 pounds. How much did the pile weigh?
-

Part 9

Figure out the simple inequality for the letter.

a. $-36 + 3p > 51$

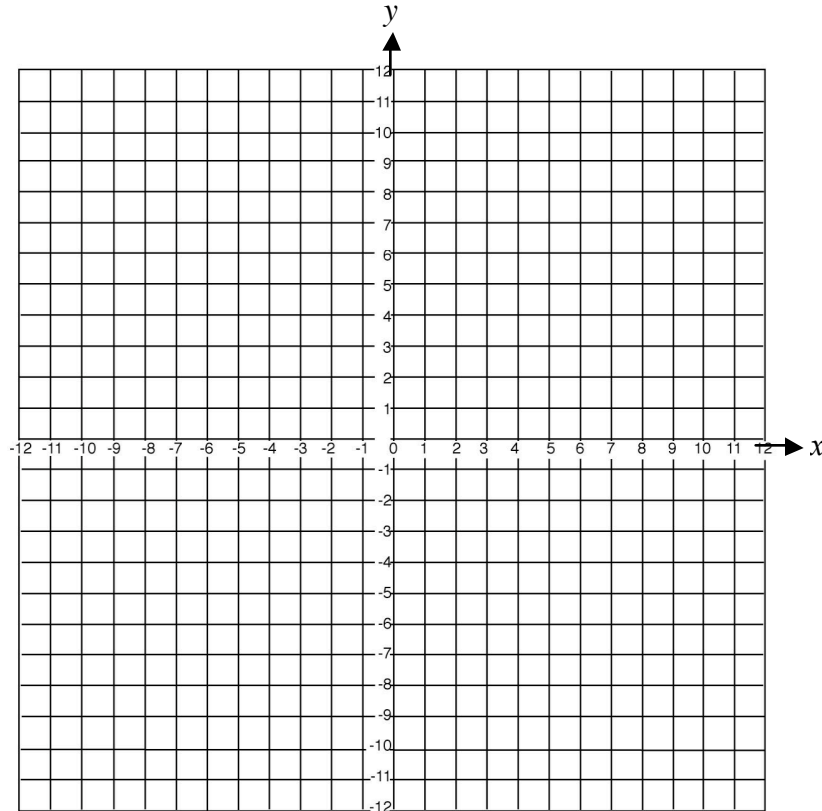
b. $10 + 48 > \frac{4}{9}t$

c. $8 > 6k - 5k$

Lesson 85 Independent Work cont.

Part 10

Write the complete equation for each line. Write the slope as a simplified fraction or whole number.



Part 11

Simplify each expression.

a. $\frac{2k \cdot r^{-3} t^3 6^2}{2^{-1} k^{-2} r t 6} = \blacksquare$

b. $\frac{4g^2 \cdot t^{-1} 3^{-3}}{4^{-2} g t^2 3^2} = \blacksquare$

Part 12

Solve each equation.

a. $\frac{7}{3} - \frac{5}{3} = \frac{c}{8}$

b. $\frac{4}{b} = \frac{12}{5}$

c. $\frac{6}{k} = \frac{4}{10} - \frac{3}{10}$

Lesson 85 Independent Work cont.

Part 13

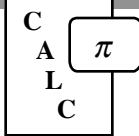
Substitute and solve each problem.

a. $3y = \frac{2}{7}x - 3$ $x = 7$

b. $\frac{7}{8}x - y = \frac{1}{2}$ $y = \frac{1}{2}$

Part 14

Copy and complete each equation.



a. $\sqrt{196} = \blacksquare$

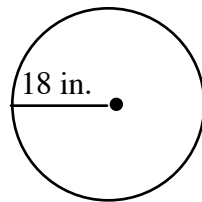
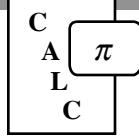
c. $\sqrt{\blacksquare} = 4.1$

b. $\sqrt{\blacksquare} = 12$

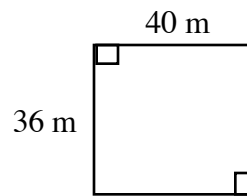
d. $\sqrt{1.44} = \blacksquare$

Part 15

Work each item.



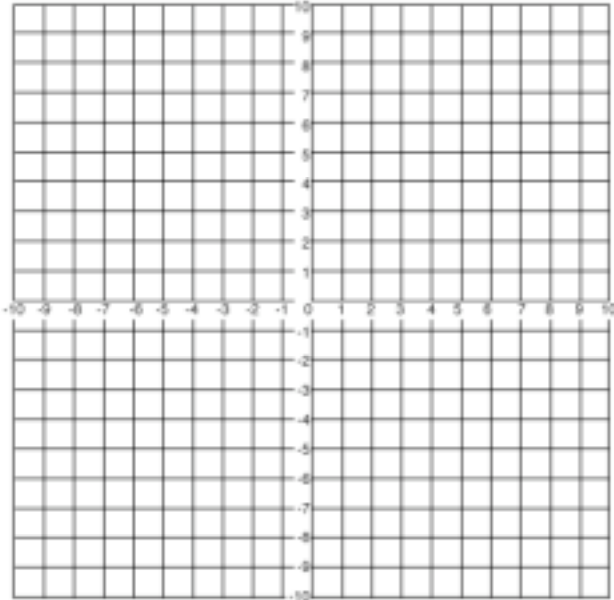
- a. Find the area and circumference.



- b. Find the area and perimeter.

Lesson 85 Key

Part K



A $y = \frac{1}{5}x$

B $y = \frac{6}{7}x$

C $y = \frac{5}{3}x$

D $y = -3x$