

NAME _____

STUDY GUIDE Lesson 13

- 1) The perimeter of the following two figures are equal. The perimeter of the first figure is $3(\frac{1}{2}x+2)$ inches. The perimeter of the second figure is $2(x-5)$, inches.

What is the perimeter? Show your work

$$3(\frac{1}{2}x+2) = 2(x-5)$$

- A) 14 inches
B) 32 inches
C) 22 inches
D) 34 inches

- 2) Determine whether the solution of each equation below is the same as the solution of $4m = 24 - 2m$. **SHOW WORK:** Choose yes or no--PROVE your answer

Solve First!

$$4m = 24 - 2m$$

$$+2m \quad +2m$$

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

$$m = 4$$

Which equations below are equal to 4?

YES

NO

$-\frac{1}{4} = -.25$

A) $-\frac{1}{4}m + 1 = -3$

$$-.25m + 1 = -3$$

$$-.25m = -4$$

$$\frac{-.25m}{-.25} = \frac{-4}{-.25}$$

$$m = 16$$

B) $4m + 3 = 5m - 1$

$$-4m \quad -4m$$

$$3 = 1m - 1$$

$$+1 \quad +1$$

$$4 = 1m$$

$$m = 4$$

C) $-2(-2m - 4.2) = 24.4$

$$4m + 8.4 = 24.4$$

$$-8.4 \quad -8.4$$

$$\frac{4m}{4} = \frac{16}{4}$$

$$m = 4$$

D) $6m - 3 - m + 2 = 24$

$$5m - 1 = 24$$

$$+1 \quad +1$$

$$\frac{5m}{5} = \frac{25}{5}$$

$$m = 5$$

YES X NO

X YES NO

X YES NO

YES X NO

Hint *
negative times
negative equals
a positive

Combine
like terms,
don't move
them!