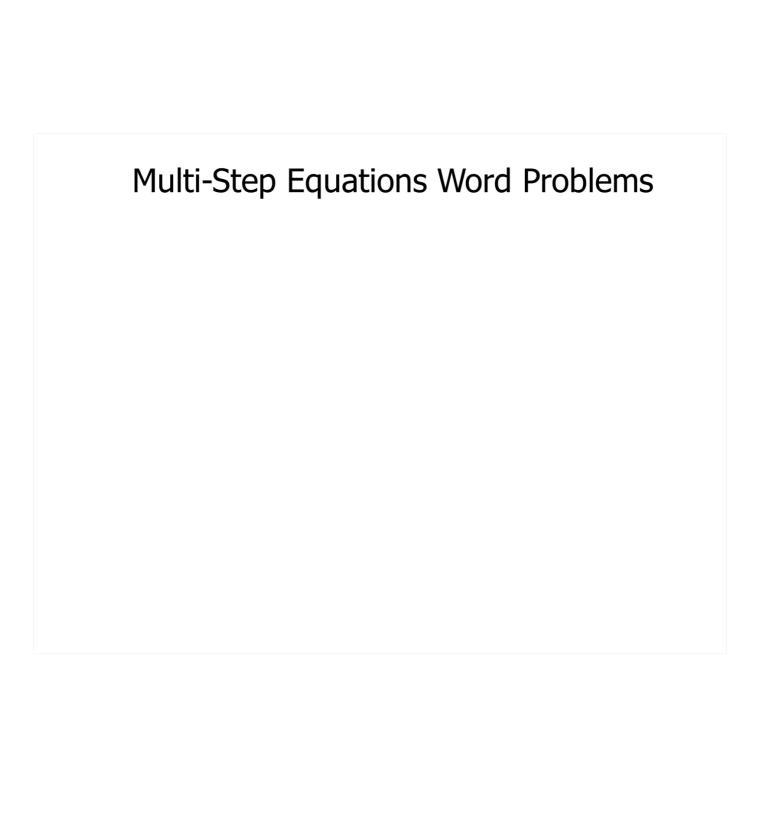
DHW Check

Multi-step equations #11 Multi-step equations #25

When you are finished, go to my website and begin CW worksheet Solving Equations with Variables on both sides.



Alex needs to rent a moving truck. Suppose Company A charges a rate of \$40 per day and Company B charges \$60 fee plus \$20 per day. For what number of days is the cost the same? x - # of days 3 days 40x = 20x + 60 40x - 20x = 20x - 20x + 60 20x = 60

Three times a number minus 8 is equal to 5 times the same number plus 10. What is the number?

$$3x-8=5x+10$$

 $3x-3x-8=5x-3x+10$ (subt. prop.=)
 $-8=2x+10$
 $-8-10=2x+10-10$ (subt. prop.=)
 $-18=2x$
 $-18=2x$
 $-18=2x$ (div. prop.=)
 $-9=x$

mily is 4 years older than Grace. When their ages are added together, hey equal 26. How old is Emily?

X - Grace's Age

13 years old

15 years old

2 17 years old

$$x+4-Emily's Age$$

$$x+x+4=26 \qquad x+4=11+4=15$$

$$2x+4=26$$

$$2x+4-4=26-4 \text{ (subt.prop.=)}$$

$$2x=22$$

$$\frac{2x}{2}=\frac{22}{2} \text{ (div.prop.=)}$$

$$x=11$$

Four more than twice a number is two less than three times the number. Find the number.

$$2x+4 = 3x-2$$

 $2x-2x+4 = 3x-2x-2$ (subt. prop. =)
 $4 = x-2$
 $4+2 = x-2+2$ (add. prop. =)
 $6 = x$
The number is 6.

The table below shows the models for the cost, in dollars, for renting a car for x miles from two different rental companies. At what number of miles will the cost be the same?

Company a	1.25x + 50
Company b	1.3x + 40

200 miles

1.25x+50 = 1.3x+40
1.25x+50 = 1.3x+40 (subt.prop.=)

$$50 = .05x+40$$

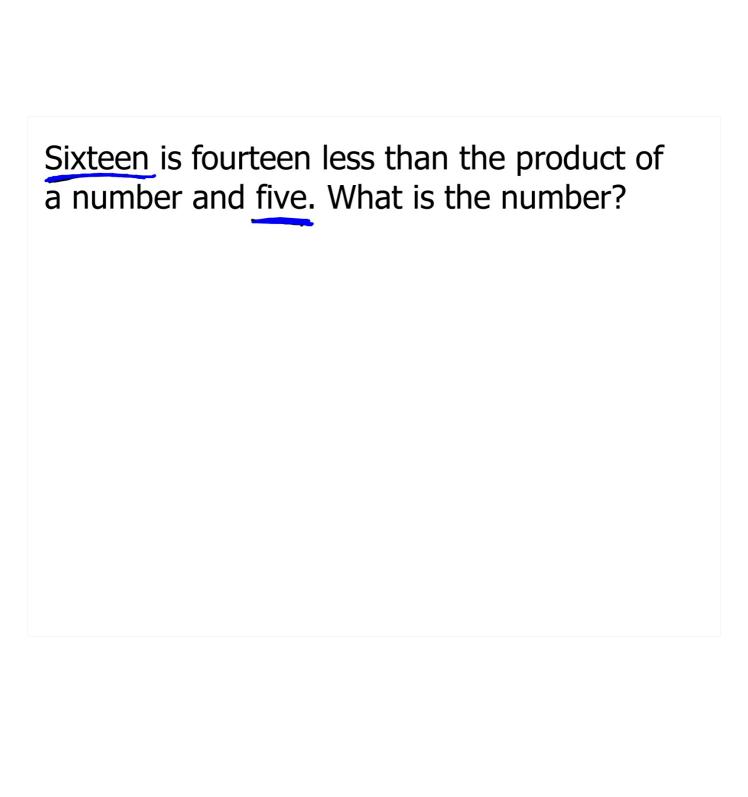
 $50-40 = .05x+40-40$ (subt.prop.=)
 $10 = .05x$
 $10 = .05x$

Three less than twice a number is three times the sum of one and the number. What is the number?

A telephone company charges a monthly fee of \$24 for 100 minutes of long distance service. The customer must then pay 7 cents per additional minute over 100. Todd's phone bill for October was \$26.38, not including taxes. How many total minutes of long distance did Todd use in October?

- A 34
- B. 66
- C. 134
- D. 377

Eight more than twice a number is four times the difference between five and the number. What is the number?



Two times a number plus one equals four times the same number minus five. What is the number?

- A -3
- B. **1**
- C. 3

Suppose your club is selling candles to raise money. It costs \$100 to rent a booth from which to sell the candles. If the candles cost your club \$1 each and are sold for \$5 each, how many candles must be sold to equal your booth rent?

HW: Finish Word Problems & Complete Study Guide #1-8