Created by Mr. Lischwe

Warmup 5/(# of e's in this sentence)

Solve for g. Then compare your answer with your table.

1) $\frac{5}{2}g + 6h = 15$
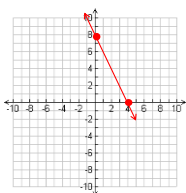
GET:
- **Calculator**
- **Regular whiteboard**
- **Marker/Eraser**

Please:

- Put back ALL calculators
- Put away ALL erasers

- Pick up after yourself!!!

Graph using intercepts:

$$6x + 3y = 24$$
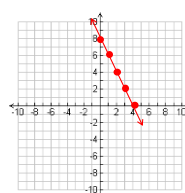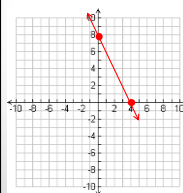
If x = 0, y = 8. → (0, 8)

If y = 0, x = 4. → (4, 0)

Solve for y and then graph...

$$6x + 3y = 24$$
$$3y = 24 - 6x$$
$$y = 8 - 2x$$

SOLVE THE FORMULA FOR r.

1. Solve the cylinder formula for r: $V = \pi r^2 h$
2. Use your new formula to find the radius of a cylinder with a volume of 1250 in³ and a height of 30 in.

$$\sqrt{\frac{V}{\pi h}} = r \qquad \sqrt{\frac{1250}{\pi \cdot 30}} = r$$

$$3.65\ in \approx r$$

Pythagorean Theorem
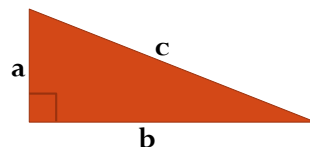
$$a^2 + b^2 = c^2$$

- Solve for c.
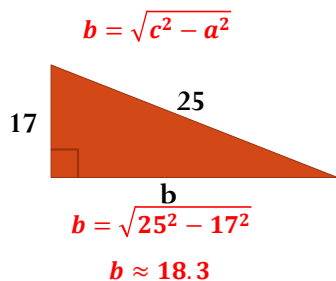 $$c = \sqrt{a^2 + b^2}$$
- Solve for a.
  $$a = \sqrt{c^2 - b^2}$$
- Solve for b.
  $$b = \sqrt{c^2 - a^2}$$

Pythagorean Theorem

- Use the "solved for b" formula to find the missing side:

$$b = \sqrt{c^2 - a^2}$$

$$b = \sqrt{25^2 - 17^2}$$

$$b \approx 18.3$$

Solve for **a**:

$$\frac{2ab - c}{3d} = e$$

$$a = \frac{3de + c}{2b}$$

Solve the system:

- $\begin{cases} -2x + 15y = 10 \\ x + 8 = 6y \end{cases}$

Converting from Fahrenheit to Celsius

- It's about 60 degrees out (Fahrenheit). What is that in CELSIUS?

- Does anybody know some conversions between Fahrenheit & Celsius?

- $60^o F \approx 15.6^o C$
- $32^o F \approx 0^o C$ (freezing point of water)

- $100^o C = 212^o C$ (boiling point of water)

Converting to Celsius:

- $C = \frac{5}{9}(F - 32)$

1. If it is 95ºF, what is that in Celsius?

$$C = \frac{5}{9}(95 - 32) \qquad C = \frac{5}{9}(63) \qquad 35^o C$$

2. If it is 41ºF, what is that in Celsius?

$$C = \frac{5}{9}(41 - 32) \qquad C = \frac{5}{9}(9) \qquad 5^o C$$

Converting to Fahrenheit:

Almost every other country uses Celsius. If you were in another country, it would be useful to know how to convert their temperature (Celsius) to the one you're familiar with (Fahrenheit). How do you convert from ºC to ºF?

SOLVE FOR F.

$$C = \frac{5}{9}(F - 32)$$

$$\frac{9}{5} \cdot C = \frac{9}{5} \cdot \frac{5}{9}(F - 32)$$

$$\frac{9}{5} \cdot C = F - 32$$

$$\frac{9}{5}C + 32 = F$$

Using our new equation...

$$\frac{9}{5}C + 32 = F$$

1. **Suppose it is 30ºC in Spain. How many degrees Fahrenheit is that?**

   $$\frac{9}{5}(30) + 32 = F \qquad 54 + 32 = F \qquad 86^oF$$

2. **Suppose it is -10ºC in Antarctica. How many degrees Fahrenheit is that?**

   $$\frac{9}{5}(-10) + 32 = F \qquad -18 + 32 = F \qquad 14^oF$$

Homework

• Study for your quiz!!!