Created by Mr. Lischwe

Warmup 5/(The second prime number)

1) Multiply: $24 \cdot \frac{5}{4}$

2) Solve for a: $\frac{3}{5}a - 2 = 6$

GET:
- **Calculator**
- **Regular whiteboard**
- **Marker/Eraser**

ALEKS – ENRICHMENT TODAY!

1st Period
Andrea – 30
Saleban – 18
Joseph – 35
Jackson – 29
Najma – 29
May – 30
Sam – 35

5th Period
Seiki – 16
Ana – 28
Troy – 76
Makhyah – 90
Sam – 61
Sydney – 59
Allison – 37
Camryn – 34
Brieanna – 60
Caroline – 39
Dayonna – 80
Alexandra – 18
Aza – 52

6th Period
Rachel – 30
Kenya – 17
Summer – 41
Viggo – 50
Jackson – 30
Khamari – 73

ALEKS during Enrichment

Quiz is now FRIDAY

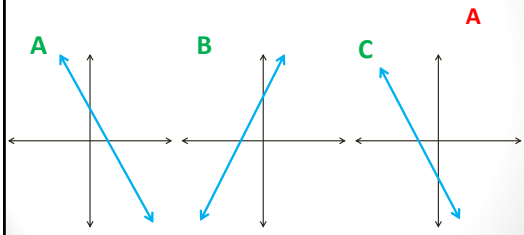
- Solving Equations w/ More than One Variable
- Applications: graphing, formulas

Which of these could be the graph?

- $18 - 2y = 7x$

$y = -\frac{7}{2}x + 9$

A



Today: Solving FORMULAS

Area of a Rectangle:

- $A = lw$

- Solve for l.

$$\frac{A}{w} = l$$

- Solve for w.

$$\frac{A}{l} = w$$

Pythagorean Theorem

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

- Solve for c.

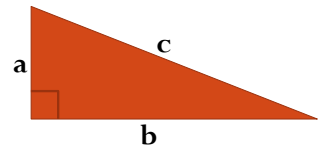
$$c = \sqrt{a^2 + b^2}$$

- Solve for a.

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

- Solve for b.

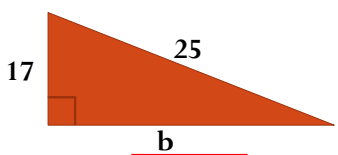
$$b = \sqrt{c^2 - a^2}$$



Pythagorean Theorem

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

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



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

$$b \approx 18.3$$

Area of a Triangle

- $A = \frac{1}{2}bh$

1. Solve the formula for b.

$$\frac{2A}{h} = b$$

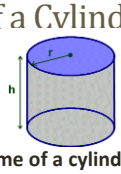
2. Find the base if the area is 80 ft^2 and the height is 12 ft.

$$\frac{2 \cdot 80}{12} = b$$

$$b = 13.\overline{3}\ ft$$

Volume of a Cylinder

$$V = \pi r^2 h$$



- **Find the volume of a cylinder with a radius of 4cm and a height of 9 cm.**

Some of you struggled with problems like…

- **If the volume of a cylinder is 800 cm^3 and the radius is 10 cm, find the height.**

SOLVE THE FORMULA FOR h.

$$\frac{V}{\pi r^2} = \frac{\pi r^2 h}{\pi r^2}$$

$$\frac{V}{\pi r^2} = h$$

If the volume of a cylinder is 800 cm^3 and the radius is 10 cm, find the height.

$$\frac{800}{\pi \cdot 10^2} = h \qquad h \approx 2.54cm$$

If the volume of a cylinder is 768π cm^3 and the radius is 8 cm, find the height.

$$\frac{768\pi}{\pi \cdot 8^2} = h \qquad h = 12\ cm$$

SOLVE THE FORMULA FOR h.

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 in^3 and a height of 30 in.**

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

$$3.65\ in \approx r$$

Homework

- Review Worksheet