

BE-Alg. 2 WEDNESDAY 8-18-10

Solve & check:

① $2(2x+3) - 3(4x-5) = 22$

② WHAT IS THE GRE?

③ What does it mean to "solve an equation"?
How do you know you solved it correctly?

ACT
1 min.
Barrens

If $\frac{5}{8}$ is expressed as a

0.25

fraction in lowest terms, what number
will be in the denominator?

(ANS)

$$\frac{\frac{5}{8}}{\frac{1}{4}} = \frac{5}{8} \cdot \frac{4}{1} = \frac{5}{2} \leftarrow \underline{\underline{\text{ANS}}}$$

Fraction Rules: +, - $\Rightarrow$ common denominator

$\cdot \Rightarrow \frac{\text{tops} \cdot \text{tops}}{\text{bottom} \cdot \text{bottoms}}$

💡 simplify or
cross-simplify
if you can

$\div \Rightarrow$ "flip & multiply" (flip the bottom fraction)

Why? $\frac{\frac{a}{b}}{\frac{c}{d}} \cdot \frac{\frac{d}{c}}{\frac{c}{d}} = \frac{\frac{a}{b} \cdot \frac{d}{c}}{1} = \frac{a}{b} \cdot \frac{d}{c}$

Homework - Worksheet Ch. 1-3

Date _____ Period _____

Solve each equation. Check each answer.

Review

1) $-4 = n + 14$

2) $31 = m + 20$

3) $r + 8 = 6$

4) $x - 12 = -27$

5) $3 = \frac{m}{17}$

6) $-17 = -17x$

7) $\frac{p}{4} = \frac{5}{4}$

8) $12n = -144$

9) $\frac{3}{5} = \frac{1}{2}a$

10) $\frac{2}{5}v = \frac{3}{5}$

11) $x + 8 - 6x = 23$

12) $-x - 5x = 24$

13) $-36 = -6(1 + n)$

14) $8(1 + 3k) = 80$

15) $-7(1 - x) = 7(4 + 6x)$

16) $7(3 + 7p) + 8 = 6(7p - 1)$

Answers to 8-17-09 Homework - Worksheet Ch. 1-3

1) $\{-18\}$

2) $\{11\}$

3) $\{-2\}$

4) $\{-15\}$

5) $\{51\}$

6) $\{1\}$

7) $\{5\}$

8) $\{-12\}$

9) $\left\{\frac{6}{5}\right\}$

10) $\left\{\frac{3}{2}\right\}$

11) $\{-3\}$

12) $\{-4\}$

13) $\{5\}$

14) $\{3\}$

15) $\{-1\}$

16) $\{-5\}$

WHAT is different about solving
the equation: $3x - 4y = 7$?

There are 2 variables, x and y , you
have to know which one to solve
for — that is — which one to
"get by itself." And the answer
will not be a number — it will
be a number plus the other variable.

ex) $3\overset{\downarrow}{x} - 4y = 7$ for x { ex) $3x - 4\overset{\downarrow}{y} = 7$ for y

$$\frac{3x}{3} = \frac{7 + 4y}{3}$$

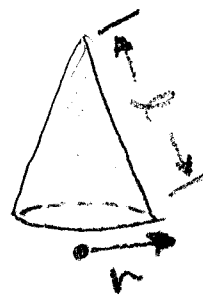
$$\boxed{x = \frac{7 + 4y}{3}}$$

$$\frac{-4y}{-4} = \frac{7 - 3x}{-4}$$

$$y = \frac{7 - 3x}{-4}$$

$$\boxed{y = \frac{3x - 7}{4}}$$

💡 Never
leave
in bottom
↓
multiply
by
 $\left(\frac{-1}{-1}\right)$

Ex 6 Pg 22 Surface Area of Cone

$$S = \pi r l + \pi r^2$$

S = Surface Area (sq. units)

l = slant height

r = radius of the circular base

Solve for l

$$\begin{array}{rcl} S & = & \pi r l + \pi r^2 \\ - \pi r^2 & & - \pi r^2 \end{array}$$

$$\frac{S - \pi r^2}{\pi r} = \frac{\pi r l}{\pi r}$$

$$\frac{S - \pi r^2}{\pi r} = l$$

or

$$\boxed{l = \frac{S - \pi r^2}{\pi r}}$$

Homework: Pg 25 # 46, 47, 49, 51, 57, 60, 61

* Review & return homework marked up w/ "things to improve"