

July 9, 2015

6.4 #42)  $\frac{3\sqrt{5}}{\sqrt{135}} = 3\sqrt{\frac{5}{135}}$

alternate  $\frac{3\sqrt{5}}{\sqrt{5 \cdot 27}} = 3\sqrt{\frac{1}{27}}$

~~$\frac{3\sqrt{5}}{\sqrt{5} \cdot \sqrt{9 \cdot 3}}$~~

~~$\frac{3}{3\sqrt{3}}$~~

$\frac{1}{\sqrt{3}} \cdot \frac{\sqrt{3}}{\sqrt{3}} = \frac{\sqrt{3}}{3}$

Jul 9-11:08 AM

6.4 #49 write smallest to largest a., b., c.

a.  $0.\overline{345345}$

b.  $0.\overline{345} \approx .3$

c.  $0.\overline{345} \approx .35$

d.  $0.\overline{34534534} \approx 0.\overline{345346}$

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$\frac{1}{3} = 0.\overline{333} \approx .34$

Jul 9-11:15 AM

Applications of Commutative & Associative Properties

143 + 98

Why are both addition?

$\begin{array}{r} 143 \\ + 98 \\ \hline 241 \end{array}$

total is 241

- Not carrying
- Same place
- Not borrowing
- Understanding place value!

$143 = 1 \cdot 100 + 4 \cdot 10 + 3 \cdot 1$

$98 = 0 \cdot 100 + 9 \cdot 10 + 8 \cdot 1$

$(1 \cdot 100) + (4 \cdot 10) + (3 \cdot 1) + (0 \cdot 100) + (9 \cdot 10) + (8 \cdot 1)$

associated

$1 \cdot 100 + 4 \cdot 10 + (3 \cdot 1) + (0 \cdot 100) + 9 \cdot 10 + 8 \cdot 1$

associative

$1 \cdot 100 + 4 \cdot 10 + (3 \cdot 1 + 0 \cdot 100) + 9 \cdot 10 + 8 \cdot 1$

associative

$1 \cdot 100 + (4 \cdot 10 + 9 \cdot 10) + (3 \cdot 1 + 8 \cdot 1)$

like like

$1 \cdot 100 + ((4+9) \cdot 10) + ((3+8) \cdot 1)$

like like

$1 \cdot 100 + 13 \cdot 10 + 11 \cdot 1$

like like

$1 \cdot 100 + 130 + 11$

$(1 \cdot 100 + 130) + 11$

like like

$(100+130) + 11$

$230 + 11$

$200 + 40 + 11$

$241$

Jul 9-11:25 AM

Distributive Property

$a(b+c) = ab + ac$

Multiplication over addition.

$3(x+4) = 2x + 10$

$3x + 12 = 2x + 10$

$-2x - 12 \quad -2x - 12$

$1 \cdot x + 0 = 0 - 2$

$x = -2$

Check  $x = -2$

$3(-2 + 4) = 2(-2) + 10$

$3(2) = -4 + 10$

$6 = 6$

Jul 9-11:48 AM

$3x + 12 = 2x + 10$

$-3x \quad -10 \quad -2x \quad -10$

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$0 + 2 = -x + 0$

$\frac{2}{-1} = \frac{-x}{-1}$

$-2 = x$

Jul 9-11:58 AM

$\Delta + \frac{9}{11} = \frac{6}{11} + \square$

Solve for  $\Delta$

$\Delta + \frac{9}{11} = \frac{6}{11} + \square$

$-\frac{9}{11} \quad -\frac{9}{11}$

$\Delta - \frac{9}{11} + \frac{9}{11} = \frac{6}{11} - \frac{9}{11} + \square$

$\Delta - \frac{9}{11} + \frac{9}{11} = \frac{6}{11} - \frac{9}{11} + \square$

$\Delta = \frac{6}{11} - \frac{9}{11} + \square$

$\Delta = \frac{6-9}{11} + \square$

$\Delta = \frac{-3}{11} + \square$

Jul 9-12:03 PM

• *Additive Inverse*

$$a + (-a) = 0$$

↑  
Inverse of  $a$

$$6 + (-6) = 0$$

↑  
sum

Jul 9-12:09 PM

• *Multiplicative Inverse*

$$\frac{a}{1} \cdot \frac{1}{a} = 1$$

*Multiplicative Inverse of  $\frac{a}{1}$*

$$\frac{a}{1} \cdot \frac{1}{a} = \frac{a}{a} = 1$$

$$2 \cdot x = 4$$

$$\frac{1}{2} \cdot \frac{2}{1} \cdot \frac{x}{1} = \frac{4}{1} \cdot \frac{1}{2}$$

$$\frac{2}{2} \cdot x = 2$$

$$1 \cdot x = 2$$

$$x = 2$$

Jul 9-12:16 PM