

Feb. 8, 2018

Warmup

$$a) 2 - (-3) + (-4) - (-5)$$

$$= 2 + 3 - 4 + 5$$

$$= 5 - 4 + 5$$

$$= 1 + 5$$

$$= \boxed{6}$$

$$b) (2 + (3 + \underbrace{4 \times 2}) - 8)^2$$

$$= (2 + (3 + 8) - 8)^2$$

$$= (2 + 11 - 8)^2$$

$$= (13 - 8)^2$$

$$= (5)^2$$

$$= \boxed{25}$$

$$c) (2 + 3) \times (-4 + 1) - 10$$

$$= (5) \times (-3) - 10$$

$$= -15 - 10$$

$$= \boxed{-25}$$

$$15 - 3 \times 2^2 - 10 \times (-2)$$

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## Fractions

### Lowest Terms

When you can divide the numerator and denominator evenly. Try 2, 3, 5, 10, 100.

$\frac{2}{3}$  → numerator  
→ denominator

Ex.

$$a) \quad \frac{10}{20} \begin{array}{l} \div 10 \\ \div 10 \end{array} = \boxed{\frac{1}{2}}$$

$$b) \quad \frac{3}{9} \begin{array}{l} \div 3 \\ = \\ \div 3 \end{array} = \boxed{\frac{1}{3}}$$

$$c) \quad \frac{15}{30} \begin{array}{l} \div 3 \\ \div 3 \end{array} = \frac{5}{10} \begin{array}{l} \div 5 \\ \div 5 \end{array} = \boxed{\frac{1}{2}}$$

## Improper Fractions

$$d) 3 \frac{1}{2} = \boxed{\frac{7}{2}}$$

To do this,  
multiply 3 by 2, then  
add 1

$$e) 1 \frac{2}{5} = \boxed{\frac{7}{5}}$$

$$f) 3 \frac{1}{4} = \boxed{\frac{13}{4}}$$

$$g) 6 \frac{3}{8} = \boxed{\frac{51}{8}}$$

## Multiplying Fractions

Multiply straight across (numerator  $\times$  numerator, denominator  $\times$  denominator) then bring to lowest terms.



$$h) \frac{3}{4} \times \frac{3}{5}$$

$$= \frac{9}{20}$$

$$i) \frac{4}{5} \times \frac{2}{3}$$

$$= \frac{8}{15}$$

$$j) \quad -\frac{2}{3} \times \frac{-5}{4}$$

$$= \frac{10}{12} \quad \begin{array}{l} \div 2 \\ \div 2 \end{array}$$

$$= \boxed{\frac{5}{6}}$$

$$k) 2\frac{2}{3} \times 1\frac{3}{4}$$

$$\frac{8}{3} \times \frac{7}{4}$$

$$\frac{56}{12} = \frac{28}{6} = \frac{14}{3}$$