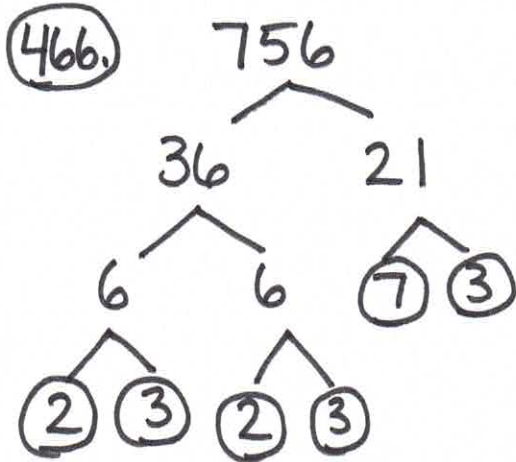




## Intermediate Algebra

### Chapter 1 – Practice Test Answer Key

(p.1)



Prime Factorization:

$$2^2 \cdot 3^3 \cdot 7$$

467.

$$\begin{aligned}
 & \underline{5n} + \underline{8} + \underline{2n} - \underline{1} \\
 & = \boxed{7n + 7}
 \end{aligned}$$

468.

$$\frac{|3x - 4y|}{6} \quad \text{when } x = 2, y = 3$$

$$= \frac{|3(2) - 4(3)|}{6}$$

$$= \frac{|6 - 12|}{6}$$

$$= \frac{|-6|}{6}$$

$$= \frac{6}{6}$$

$$= \boxed{1}$$

469.

a.  $-8-11$   
 $= \boxed{-19}$

b.  $-8-(-3)+5$   
 $= -8+3+5$   
 $= \boxed{0}$

470.

$\boxed{4n-7}$

four times  
the number  
of nickels

seven less than

471.

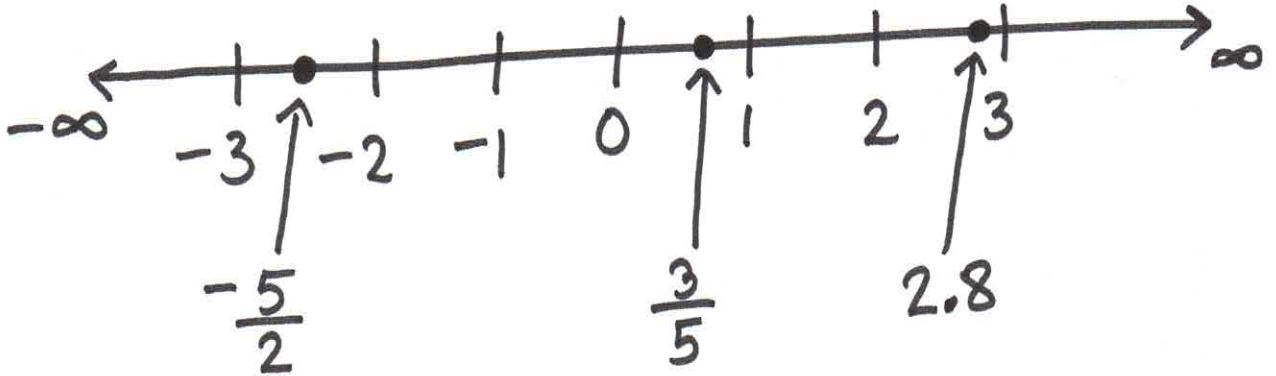
a.  $28.14\underline{5}8$   
 $= 28.1500$   
 $= \boxed{28.15}$

b.  $28.145\underline{8}$   
 $= 28.1460$   
 $= \boxed{28.146}$

472. a.  $\frac{5}{11} = \boxed{0.\overline{45}}$

b.  $1.15 = \boxed{115\%}$

473.



474.  $8 + 3[6 - 3(5 - 2)] - 4^2$

$= 8 + 3[6 - 3(3)] - 4^2$

$= 8 + 3[6 - 9] - 16$

$= 8 + 3[-3] - 16$

$= 8 - 9 - 16$

$= \boxed{-17}$

$$\begin{aligned} \textcircled{475.} & -(4-9) - (9-5) \\ & = -(-5) - (4) \\ & = 5 - 4 \\ & = \boxed{1} \end{aligned}$$

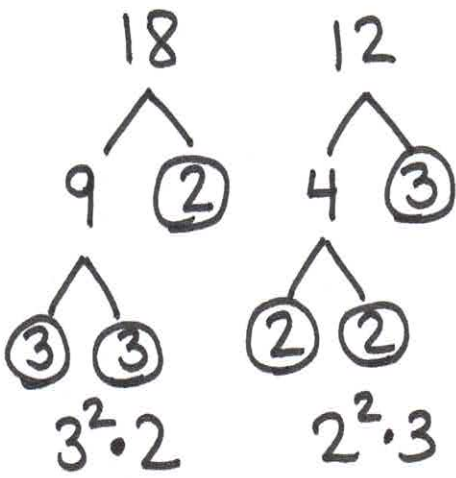
$$\begin{aligned} \textcircled{476.} & \underline{56 \div (-8)} + \underline{(-27) \div (-3)} \\ & = -7 + 9 \\ & = \boxed{2} \end{aligned}$$

$$\begin{aligned} \textcircled{477.} & 16 - 2|3(1-4) - (8-5)| \\ & = 16 - 2|3(-3) - (3)| \\ & = 16 - 2|-9-3| \\ & = 16 - 2|-12| \\ & = 16 - 2(12) \\ & = 16 - 24 \\ & = \boxed{-8} \end{aligned}$$

$$\begin{aligned} \textcircled{478.} \quad & -5 + 2(-3)^2 - 9 \\ & = -5 + 2(9) - 9 \\ & = -5 + 18 - 9 \\ & = \boxed{4} \end{aligned}$$

$$\textcircled{479.} \quad \frac{180}{204} = \frac{\cancel{12} \cdot 15}{\cancel{12} \cdot 17} = \boxed{\frac{15}{17}}$$

$$\textcircled{480.} \quad -\frac{7}{18} + \frac{5}{12} = -\frac{7}{18} \cdot \frac{2}{2} + \frac{5}{12} \cdot \frac{3}{3}$$



$$= -\frac{14}{36} + \frac{15}{36}$$

$$= -\frac{14 + 15}{36}$$

$$= \boxed{\frac{1}{36}}$$

LCM:  $2^2 \cdot 3^2$   
 $= 36$

LCD: 36

$$(481.) \quad \frac{4}{5} \div \left(-\frac{12}{25}\right) = \frac{\overset{1}{\cancel{4}}}{\underset{1}{\cancel{5}}} \cdot \frac{\overset{5}{\cancel{25}}}{\underset{-3}{\cancel{-12}}} = \boxed{\frac{-5}{3}}$$

$$(482.) \quad \frac{9-3 \cdot 9}{15-9} = \frac{9-27}{6} = \frac{-18}{6} = \boxed{-3}$$

$$(483.) \quad \frac{4(-3+2(3-6))}{3(11-3(2+3))} = \frac{4(-3+2(-3))}{3(11-3(5))}$$

$$= \frac{4(-3-6)}{3(11-15)}$$

$$= \frac{4(-9)}{3(-4)}$$

$$= \frac{-36}{-12}$$

$$= \boxed{3}$$

484.  $\frac{5}{13} \cdot 47 \cdot \frac{13}{5} = \frac{\cancel{5}^1 \cdot \cancel{13}_1 \cdot 47}{\cancel{13}_1 \cdot \cancel{5}_1} = \boxed{47}$

485.  $\frac{-5}{9} \div \frac{10}{21} = \frac{-5}{9} \cdot \frac{21}{10} = \frac{\cancel{-5}^1 \cdot \cancel{21}_3 \cdot 7}{\cancel{9}_3 \cdot \cancel{10}_2} = \boxed{\frac{-7}{6}}$

486.  $-4.8 + (-6.7) = \boxed{-11.5}$

487.  $34.6 - 100 = \boxed{-65.4}$

488.  $-12.04 \cdot (4.2) = \boxed{-50.5680}$

489.  $-8 \div 0.05 = \boxed{-160}$

490.  $\sqrt{-121} = \boxed{\text{no real number solution}}$

$$\textcircled{491.} \left( \frac{8}{13} + \frac{5}{7} \right) + \frac{2}{7} = \frac{8 \cdot \cancel{7}}{13 \cdot \cancel{7}} + \frac{5 \cdot \cancel{13}}{7 \cdot \cancel{13}} + \frac{2 \cdot \cancel{13}}{7 \cdot \cancel{13}}$$

$$\begin{aligned} \text{LCM} &: 13 \cdot 7 \\ &= 91 \end{aligned}$$

$$\text{LCD} : 91$$

$$= \frac{56}{91} + \frac{65}{91} + \frac{26}{91}$$

$$= \frac{56 + 65 + 26}{91}$$

$$= \frac{\cancel{147}^{21}}{\cancel{91}_{13}}$$

$$= \boxed{\frac{21}{13}}$$

$$\textcircled{492.} \quad \underbrace{5x} + \underbrace{(-8y)} - \underbrace{6x} + \underbrace{3y}$$

$$= \boxed{-x - 5y}$$

$$\textcircled{493.} \quad \text{a.} \quad \frac{0}{9} = \boxed{0}$$

$$\text{b.} \quad \frac{11}{0} = \boxed{\text{undefined}}$$



$$\textcircled{494.} -3(8x-5) = \boxed{-24x+15}$$

$$\textcircled{495.} 6(3y-1) - (5y-3)$$

$$= \underline{18y} - \underline{6} - \underline{5y} + \underline{3}$$

$$= \boxed{13y-3}$$