

$$\begin{aligned} \textcircled{1} \quad & -10\sqrt{100} + |22 \div (-11)| - (22-10) = \\ & -10(10) + |-2| - (12) = \\ & -100 + (2) - 12 = \\ & -100 + 2 - 12 = \\ & -98 - 12 = \\ & \textcircled{-110} = \end{aligned}$$

$\textcircled{4}$  Evaluate

$$\frac{x^2}{2z+y}$$

$$\begin{aligned} x &= 5 \\ y &= -1 \\ z &= 3 \end{aligned}$$

$$\frac{(5)^2}{2(3)+(-1)}$$

$$\frac{(5)(5)}{2(3)+(-1)}$$

$$\frac{25}{6-1}$$

$$\frac{25}{5} =$$

$$\textcircled{5} =$$

**Math 0301**  
**Pretest**  
~~(4-24-11)~~

$$\begin{aligned} \textcircled{2} \quad & \frac{-19 + 5^2 - (-15)}{-6 - 9 + 18} = \\ & \frac{-19 + (5)(5) - (-15)}{-6 - 9 + 18} = \\ & \frac{-19 + 25 + 15}{-6 - 9 + 18} = \\ & \frac{6 + 15}{-15 + 18} = \\ & \frac{21}{-3} = \\ & \textcircled{-3} = \end{aligned}$$

EVALUATE

$\textcircled{5}$

$$\begin{aligned} \textcircled{3} \quad & -|4m + 4n| ; m = -8, n = 3 \\ & -|4(-8) + 4(3)| = \\ & -|-32 + 12| = \\ & -|-20| = \\ & -(20) = \\ & \textcircled{-20} = \end{aligned}$$

subtract

$$\begin{aligned} & (9p^2 + 12p + 8) - (3p^2 + 4p - 6) \\ & 9p^2 + 12p + 8 - 3p^2 - 4p + 6 = \\ & \textcircled{6p^2 + 8p + 14} = \end{aligned}$$

⑥ FACTOR  
30

Primes 2, 3, 5, 7, 11, 13, ...

$$\begin{array}{r} 2 \overline{)30} \\ 3 \overline{)15} \\ 5 \overline{)5} \\ 1 \end{array}$$

$30 =$

$2 \cdot 3 \cdot 5 =$

⑨ Simplify

$$\frac{15}{18} \cdot \frac{3}{5} = \begin{array}{r} 3 \overline{)15} \\ 5 \overline{)5} \\ 1 \end{array}$$

$$\frac{3 \cdot 5}{2 \cdot 3 \cdot 3} \cdot \frac{3}{5} =$$

$$\begin{array}{r} 2 \overline{)18} \\ 3 \overline{)9} \\ 3 \overline{)3} \\ 1 \end{array}$$

$\frac{1}{2} =$

Solve  
⑦  $4(y+2) = 5(y-2)$

$4y + 8 = 5y - 10$

$4y + 8 - 8 = 5y - 10 - 8$

$4y = 5y - 18$

$4y - 5y = 5y - 18 - 5y$

$-1y = -18$

$\frac{-1y}{-1} = \frac{-18}{-1}$

$y = 18$

⑩  $\frac{-12x^4y^1}{10z^1} \cdot \frac{20z^1}{20x^2} =$

$$\frac{-2 \cdot 2 \cdot 3x^4y^1}{2 \cdot 5 \cdot z^1} \cdot \frac{20z^1}{20x^2} =$$

$$\frac{-6x^{4-2}y^1}{5} =$$

$$\frac{-6x^2y^1}{5} =$$

Solve  
⑧  $7y - 2(y-2) = 9y - (5y+8)$

$1y - 2y + 4 = 9y - 5y - 8$

$5y + 4 = 4y - 8$

$5y + 4 - 4 = 4y - 8 - 4$

$5y = 4y - 12$

$5y - 4y = 4y - 12 - 4y$

$y = -12$



11.  $-\frac{16}{21}y = -\frac{4}{15}$

$$\frac{21}{-16} \left( -\frac{16}{21}y \right) = \frac{21}{-16} \left( -\frac{4}{15} \right)$$

$$y = \frac{3 \cdot 7}{-2 \cdot 2 \cdot 2 \cdot 2} \left( \frac{-2 \cdot 2}{3 \cdot 5} \right)$$

$$y = \frac{7}{20}$$

14.  $k + \frac{1}{5} = \frac{1}{2}$

$$k + \frac{1}{5} - \frac{1}{5} = \frac{1}{2} - \frac{1}{5}$$

$$k = \frac{1}{2} - \frac{1}{5}$$

$$k = \frac{1}{2} \left( \frac{5}{5} \right) - \frac{1}{5} \left( \frac{2}{2} \right)$$

$$k = \frac{5}{10} - \frac{2}{10}$$

$$k = \frac{5-2}{10}$$

$$k = \frac{3}{10}$$

12.  $30h^5k$  and  $360h^2k^3$

Find LCM

$$h^5 = h \cdot h \cdot h \cdot h \cdot h$$

$$k^1 = k$$

$$h^2 = h \cdot h$$

$$k^3 = k \cdot k \cdot k$$

$$\begin{array}{r} 2 \overline{) 30} \\ 3 \overline{) 15} \\ 5 \overline{) 5} \\ 1 \end{array}$$

$$\begin{array}{r} 2 \overline{) 360} \\ 2 \overline{) 180} \\ 2 \overline{) 90} \\ 3 \overline{) 45} \\ 3 \overline{) 15} \\ 5 \overline{) 5} \\ 1 \end{array}$$

$$\text{LCM} = 2 \cdot 2 \cdot 2 \cdot 3 \cdot 3 \cdot 5 \cdot h^5 \cdot k^3$$

$$= 360 h^5 k^3$$

13.  $\frac{4}{8} + \frac{1}{12} + \frac{4}{15} =$

$$\frac{4}{8} \left( \frac{15}{15} \right) + \frac{1}{12} \left( \frac{10}{10} \right) + \frac{4}{15} \left( \frac{8}{8} \right) = \text{LCD} = 2 \cdot 2 \cdot 2 \cdot 3 \cdot 5$$

$$\frac{60}{120} + \frac{10}{120} + \frac{32}{120} =$$

$$\frac{60+10+32}{120} =$$

$$\frac{102}{120} =$$

$$\frac{6 \cdot 17}{6 \cdot 20} = \frac{17}{20}$$

$$\begin{array}{r} 2 \overline{) 8} \\ 2 \overline{) 4} \\ 2 \overline{) 2} \\ 1 \end{array}$$

$$\begin{array}{r} 2 \overline{) 12} \\ 2 \overline{) 6} \\ 3 \overline{) 3} \\ 1 \end{array}$$

$$\begin{array}{r} 3 \overline{) 15} \\ 5 \overline{) 5} \\ 1 \end{array}$$

$$\text{LCD} = 2 \cdot 2 \cdot 2 \cdot 3 \cdot 5 = 120$$

$$(15) \left(\frac{2}{3}\right)^2 + 5\frac{1}{3} \div 1\frac{1}{5} =$$

$$\left(\frac{2}{3}\right)\left(\frac{2}{3}\right) + \frac{16}{3} \div \frac{6}{5} =$$

$$\left(\frac{4}{9}\right) + \frac{16}{3} \cdot \frac{5}{6} =$$

$$\frac{4}{9} + \frac{8}{3} \cdot \frac{5}{3}$$

$$\frac{4}{9} + \frac{40}{9} =$$

$$\frac{4+40}{9} =$$

$$\frac{44}{9} =$$

$$4\frac{8}{9} =$$

$$\begin{array}{r} 4 \\ 9 \overline{)44} \\ \underline{-(36)} \\ 8 \text{ Rem} \end{array}$$

$$(16) -7.4q + 1.3 = -28.2 - 1.5q$$
$$-7.4q + 1.3 - 1.3 = -28.2 - 1.5q - 1.3$$

$$-7.4q = -1.5q - 29.5$$

$$-7.4q + 1.5q = -1.5q - 29.5 + 1.5q$$

$$-5.9q = -29.5$$

$$\frac{-5.9q}{-5.9} = \frac{-29.5}{-5.9}$$

$$q = 5$$

$$(17) \begin{array}{c} ? = x \\ \triangle \\ 4ft \quad 19ft \end{array}$$

$$A^2 + B^2 = C^2$$

$$(4)^2 + (19)^2 = x^2$$

$$16 + 361 = x^2$$

$$377 = x^2$$

$$\sqrt{377} = \sqrt{x^2}$$

$$19.41648784 = x$$

$$(18) \frac{48}{132} = \frac{12}{x}$$

$$48(x) = 132(12)$$

$$48x = 1584$$

$$\frac{48x}{48} = \frac{1584}{48}$$

$$x = 33$$



$$(19) \frac{1}{2} = \frac{n}{4\frac{1}{7}} \rightarrow$$

$$1(4\frac{1}{7}) = 2(n)$$

$$4\frac{1}{7} = 2n$$

$$\frac{29}{7} = 2n$$

$$\frac{1}{2}(\frac{29}{7}) = \frac{1}{2}(2n)$$

$$\frac{29}{14} = n$$

$$14 \overline{) 29} \quad 2\frac{1}{14}$$
$$\underline{(28)}$$
$$1 \text{ Rem}$$

$$2\frac{1}{14} = n$$

(21) 51 is 60% of what number?

$$\frac{51}{x} = \frac{60}{100}$$

$$51(100) = x(60)$$

$$5100 = 60x$$

$$\frac{5100}{60} = \frac{60x}{60}$$

$$85 = x$$

51

(22) what percent of 1080 is 54?

(20) If 4 sandwich rolls cost \$1.08, how much will 24 rolls cost?

$$\frac{4}{1.08} = \frac{24}{x}$$

$$4(x) = 1.08(24)$$

$$4x = 25.92$$

$$\frac{4x}{4} = \frac{25.92}{4}$$

$$x = 6.48$$

$$\frac{54}{1080} = \frac{x}{100}$$

$$54(100) = 1080(x)$$

$$5400 = 1080x$$

$$\frac{5400}{1080} = \frac{1080x}{1080}$$

$$5 = x$$

$$5\% = x$$

23.

$$.06X = 41$$

$$\frac{.06X}{.06} = \frac{41}{.06}$$

$$X = 683.333333$$

6

24) A camera costs \$670  
If the sale tax is 4%  
then find the tax and total?

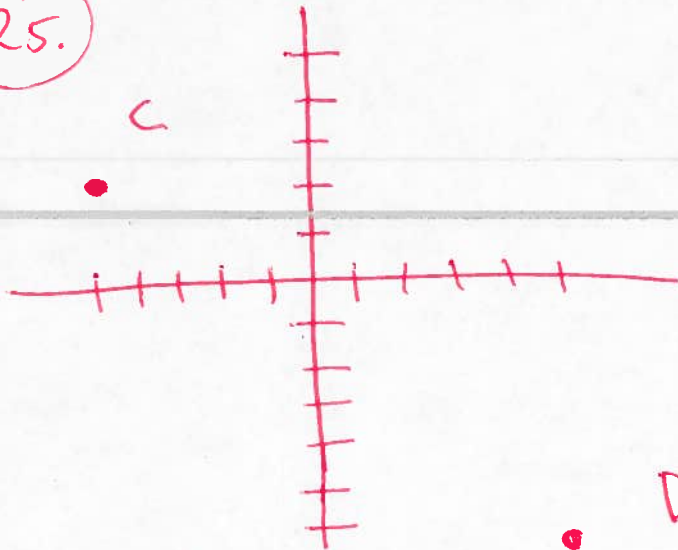
$$670 \times .04 = 26.80$$

$$670 + 26.80 =$$

~~696.80~~

$$696.80$$

25.



$$C = (-5, 2)$$

$$D = (5, -6)$$