

① $36 \div 4 \div 12,5$
 $(0,72)$ PEMDAS

② $16,3 - 4 \cdot 3$
 $[4,3]$ PEMDAS

③ $14 \cdot 16,5 \div 12,5 \cdot 14$
 $(258,72)$ PEMDAS

④ $2 \cdot 14 \cdot 16,5 - 9$ (453)
 PEMDAS

⑤ $3,5 \cdot 14 \cdot 16 + 7 \cdot 9$

 $\frac{1}{2} \cdot 14 - \frac{1}{3} \cdot 9$
 $\frac{784 + 63}{7 - 3} = \frac{847}{4}$
 $[211,75]$ PEMDAS

⑥ $\frac{9(x+4)}{9} = \frac{63}{9}$ (OR) $9(x+4) = 63$
 $9x + 36 = 63$
 $-36 \quad -36$
 $\frac{9x}{9} = \frac{27}{9}$
 $x + 4 = 7$
 $-4 \quad -4$
 $(x = 3)$ (OR) $(x = 3)$

⑦ $2n + 7(n+8) = 62$
 $2n + 7n + 56 = 62$
 $9n + 56 = 62$
 $-56 \quad -56$
 $\frac{9n}{9} = \frac{6}{9}$
 $n = \frac{6}{9} = \frac{2}{3}$

⑧ $19c + 26 = 41 + 14c$
 $-14c \quad -14c$
 $5c + 26 = 41$
 $-26 \quad -26$
 $\frac{5c}{5} = \frac{15}{5}$
 $(c = 3)$

⑨ $19 = \frac{x}{90} - 25$
 $+25 \quad +25$
 $90 \cdot 44 = \frac{x}{90} \cdot 90$
 $[3960] = x$

$$(10) (x - 5x^2) + 22 + x = 78 - 4x^2 - x$$

$$\begin{array}{r} -4x^2 + 22 + x = 78 - 4x^2 - x \\ +4x^2 \qquad \qquad \qquad +4x^2 \\ \hline \end{array}$$

$$\begin{array}{r} 22 + x = 78 - x \\ +x \qquad \qquad \qquad +x \\ \hline \end{array}$$

$$\begin{array}{r} 22 + 2x = 78 \\ -22 \qquad \qquad -22 \\ \hline \end{array}$$

$$\begin{array}{r} 2x = 56 \\ \underline{\quad 2} \quad \underline{\quad 2} \\ \hline \end{array}$$

$$\boxed{x = 28}$$

$$(11) \begin{array}{r} 12x \geq -60 \\ \underline{\quad 12} \quad \underline{\quad 12} \\ \hline \end{array}$$

$$\boxed{x \geq -5}$$

$$(12) \begin{array}{r} -3.9 \cdot c \leq 43.68 \\ \underline{\quad -3.9} \quad \underline{\quad -3.9} \\ \hline \end{array}$$

$$\boxed{c \geq -11.2}$$

vertical lines

(13)

$$\begin{array}{cccccccc} 5 & 4 & 6 & 6 & 1 & 2 & 3 & 4 & 5 & 6 & 7 & 8 & 9 & 1 & 2 \\ \cdot & & & & & & & & & & & & & & \\ 2 & 2 & 2 & 2 & 2 & 2 & 2 & 2 & 2 & 2 & 2 & 2 & 2 & 2 & 2 \end{array}$$

$$\boxed{1+0} + 4 + \boxed{1 \cdot 2} + 6 + 2 + 2 + 6 + 4 +$$

$$+ \boxed{1 \cdot 0} + 6 + \boxed{1 \cdot 4} + 8 + \boxed{1 \cdot 8} + 1 + 4$$

$$62 + ? = 70 \quad \boxed{x = 8}$$

$$(14) \frac{3(A-7)}{8} \geq (A+2) \cdot 5$$

$$\begin{array}{r} 3A - 21 \geq 5A + 10 \\ \underline{-3A} \qquad \underline{-3A} \end{array}$$

$$\begin{array}{r} -21 \geq 2A + 10 \\ \underline{-10} \qquad \underline{-10} \end{array}$$

$$\begin{array}{r} -31 \geq 2A \\ \underline{\quad 2} \quad \underline{\quad 2} \end{array}$$

$$\boxed{-15.5 \geq A \text{ or } A \leq -15.5}$$

$$(15) \boxed{\frac{n}{7} \text{ or } n = 7}$$

$$(16) \boxed{10n + 20}$$

$$(17) \boxed{14 + a > 30}$$

$$(18) \quad 3k - 2 = 4$$

$$(19) \quad \frac{3d \supset 18}{3 \quad 3}$$

$$\boxed{d \supset 6}$$

(20) Let $C = \text{Cost}$

$$C = 4 \times 7.50$$

$$\boxed{C = \$30}$$

(21) Let $t = \# \text{ students}$

$$t = 120 + 120 + 140 + 125$$

$$\boxed{t = 505 \text{ students}}$$

* Freshmen: 120 side note

Soph: 120 ~~120~~

Juniors 120

Seniors: 120 + 120 + 5

(22)

$$8(4p + 1) = 32p + 8$$

$\swarrow \searrow$

$$32p + 8 = 32p + 8$$

$$\underline{-32p} \quad \underline{-32p}$$

$$0p + 8 = 8$$

$$\underline{-8} \quad \underline{-8}$$

$$0 = 0$$

$$\boxed{\text{All #'s}}$$

Solution!
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