

① which fraction is equal to 0.06?

$$\hookrightarrow \frac{6}{100} \Rightarrow 0.06$$

\hookrightarrow represents hundredth

*ans: D

② 36 members \times 12 items per member

$$\begin{aligned} \text{total items} &= 36 \times 12 \\ &= 432 \text{ items total} \end{aligned}$$

*ans: D

$$\textcircled{3} \quad \frac{4}{10} + \frac{3}{100} \Rightarrow \frac{40}{100} + \frac{3}{100} \Rightarrow \frac{43}{100}$$

*ans: A

④ 280 binders (attendees) + 31 binders (presenters)

*ans: C

$$\begin{aligned} \text{total binders} &= 280 + 31 \\ &= 311 \text{ binders total} \end{aligned}$$

⑤ 150 cans total & 72 sold; what % sold?

$$\hookrightarrow \% \text{ sold} = \frac{72}{150} \times 100\%$$

$$= 48\% \text{ of the total cans sold}$$

*ans: C

⑥ $\frac{8}{3} = 2\frac{2}{3} \rightarrow \therefore$ it is greater than 2.28, $\frac{10}{12}$ & 0.199

*ans: A

⑦ 25% of \$130

$\frac{25}{100} = 0.25$
 \rightarrow 25% as a decimal

$$\text{Deposit} = \$130 \times 0.25$$
$$= \$32.50$$

*ans: C

⑧ 1,582 + 761

\downarrow

$$\begin{array}{r} 1582 \\ + 761 \\ \hline \end{array}$$

*ans: D

$$\begin{array}{r} 1582 \\ + 761 \\ \hline 2343 \end{array}$$

⑨ 3 eggs/batch. 20 eggs; how many batches?

$$\# \text{ of batches} = \frac{20 \text{ eggs}}{3 \text{ eggs/batch}} \Rightarrow 6\frac{2}{3}$$

\therefore He can make 6 full batches

*ans: C

⑩ $3.85 + 0.004 + 0.117$

$$\begin{array}{r}
 \downarrow \\
 3.85 \\
 0.117 \\
 + 0.004 \\
 \hline
 3.971
 \end{array}$$

*ans: C

⑪ equivalent to $\frac{8}{25}$? \rightarrow easy way to think about it: $\frac{8}{10} = 0.8$

$$\begin{array}{r}
 \downarrow \\
 0.32
 \end{array}$$

*ans: B

$$\therefore \frac{8}{20} = 0.4$$

$$\therefore \frac{8}{25} = 0.32$$

⑫ what is the remainder when $599 \div 9$?

$$\begin{array}{r}
 066 \\
 9 \overline{) 599} \\
 \underline{-0} \downarrow \\
 59 \\
 \underline{-54} \\
 \hline
 \cancel{59}
 \end{array}$$

DMSB
 1000s
 100s
 10s
 1s

\therefore the remainder is 5

$$\cancel{59}$$

$$\underline{-54}$$

5

*ans: B

$$\begin{aligned} \textcircled{13} \text{ Change} &= \text{final} - \text{initial} \\ &= 6.088 \text{ IPM} - 5.921 \text{ IPM} \\ &= 0.167 \text{ IPM} \end{aligned}$$

*ans: A

$$\begin{aligned} \textcircled{14} \text{ *ans: A} & \xrightarrow{\text{greatest}} \frac{3}{4} = 0.75 \\ & \xrightarrow{\text{least}} 0.75\%, 0.075, \frac{3}{4} \\ & \xrightarrow{\text{least}} 0.75\% = 0.0075 \end{aligned}$$

$$\textcircled{15} 2.84 \times 3.9 = ? \Rightarrow 3 \times 4 = \underline{12}$$

*ans: 11.076

$$3.9 \approx 4$$

*ans: B

$$2.84 \approx 3$$

\(\therefore\) the answer must be

$$\sim < 12$$

$$\textcircled{16} 0. \overset{\text{hundredth}}{\underset{\text{ten}}{8}} \overset{\text{thousandth}}{\underset{\text{thousandth}}{6}} \overset{\text{thousandth}}{\underset{\text{thousandth}}{7}} \text{ rounded to nearest hundredth:}$$

$$\downarrow$$

$$\underline{0.86}$$

*ans: A

too small to round upwards
to 0.87

$$\textcircled{17} 60\% \text{ of } x = 30 ?$$

$$x = \frac{30}{60\%} \Rightarrow \frac{30}{0.6} \Rightarrow \underline{50}$$

*ans: D

18) if $\frac{4}{3} \div \frac{1}{6} = p$, what is p?

$$\frac{4}{3} \times \frac{6}{1} \Rightarrow \frac{24}{3} \Rightarrow 8 \quad \therefore p \text{ is between } 7 \text{ \& } 9$$

* ans: D

19) which inequality is true?

$$\hookrightarrow \frac{5}{8} > \frac{6}{10} \Rightarrow \frac{5}{8} = \underline{0.625} \text{ \& } \frac{6}{10} = \underline{0.6}$$

* ans: C

20) 28 day period

$$\text{Bookstore: } \frac{1}{4} = \frac{x}{28} \Rightarrow \frac{1}{4} = \frac{7}{28}$$

$$\text{Did not work: } \frac{1}{14} = \frac{2}{28}$$

$$\text{Restaurant: } \frac{28}{28} - \frac{9}{28} = \frac{2}{28} + \frac{7}{28} = \frac{9}{28}$$

$$= \frac{19}{28}$$

\therefore She worked at the restaurant 19/28 days!

* ans: B