

Solutions

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Problem 1: $-1 + 20 - 10 = \underline{-1 + 20} - 10$

$$= 19 - 10$$
$$= 9$$

Problem 2: $20 \times (-2) + 100 - 110$

→ By BODMAS

$$= \underline{-40 + 100} - 110$$
$$= 100 - 40 - 110$$
$$= 60 - 110$$
$$= -50$$

Problem 3: $(-2) \times (-2 + 3)$

→ By BODMAS

→ we solve the inside thing first

$$= (-2) \times (+1)$$
$$= -2$$

Problem 4: $(-9) + (10) \times 0 + 11$

$$= -9 + 0 + 11$$

$$= 11 - 9 = 2$$

→ 0 is only being multiplied by 10

Problem 5: $-5 \times -4 - 20 \times 1$

→ By bodmas

$$= 20 - 20$$

$$= 0$$

Problem 6: - $\frac{12}{40} = \frac{4 \times 3}{4 \times 10} = \frac{3}{10}$

Problem 7: - $\frac{-10}{-5} = \frac{\cancel{10}}{\cancel{5}} = \frac{2 \times 5}{5} = \frac{2}{1} = 2$

Problem 8: - $\frac{1}{6} + \frac{2}{6} = \frac{3}{6} = \frac{1}{2}$

Problem 9: - $\frac{1}{8} + \frac{7}{12} = \frac{1 \times 3 + 7 \times 2}{\text{Lcm}(8,12) = 24} = \frac{17}{24}$

Problem 10: -

$$\frac{4}{8} \times \frac{6}{5} = \frac{24}{40} = \frac{3 \times 8}{5 \times 8} = \frac{3}{5}$$

Problem 11: -

$$\begin{aligned} 101.24 &= 100 + 1 + 0.2 + 0.04 \\ &= 100 + 1 + \frac{2}{10} + \frac{4}{100} \end{aligned}$$

Problem 12: -

$$101.42 \rightarrow 2 \text{ hundredth} = \frac{2}{100}$$

Problem 13: -

$$\begin{aligned} 20 \cdot 02 + 100 \cdot 08 &= \\ &\begin{array}{r} 20 \cdot 02 \\ + 100 \cdot 08 \\ \hline 120 \cdot 10 \end{array} = 120 \cdot 1 \end{aligned}$$

Problem 14: -

$$\begin{aligned} &10 \cdot 1 \\ + &20 \cdot 03 \\ \hline &30 \cdot 13 \end{aligned}$$

Problem 15: -

$$\begin{aligned} & \underbrace{100}_2 \times 103.456 \\ = & 10345.6 \end{aligned}$$

↪ shift decimal point by 2 places

Problem 16: -

$$x = 5 \quad \text{So} \quad x + 10 = 5 + 10 = 15$$

Problem 17: -

$$x = 20 \quad \text{So} \quad x/10 = 20/10 = 2$$

Problem 18: -

$$\begin{aligned} x + 100 &= 103 \\ \Rightarrow x &= 103 - 100 \end{aligned}$$

Problem 19: -

$$\begin{aligned} x + 102 &= 98 \\ \Rightarrow x &= 98 - 102 \\ &= -4 \end{aligned}$$

Problem 20: -

$$\begin{aligned} \frac{x}{10} &= 0.53 \\ \Rightarrow x &= 0.53 \times 10 \\ &= 5.3 \end{aligned}$$