

1) What is the reciprocal of $-\frac{2}{3}$?

$$\boxed{-\frac{3}{2}}$$

2) What is the opposite of $-\frac{2}{3}$?

$$\boxed{+\frac{2}{3}}$$

3) List in order from greatest to least $\left\{-\frac{3}{4}, 1\frac{3}{5}, \frac{5}{8}, -\frac{9}{4}, 0\right\}$

$$\boxed{1\frac{3}{5}, \frac{5}{8}, 0, -\frac{3}{4}, -\frac{9}{4}}$$

4) What is the lowest common denominator between $\frac{1}{4}$ and $-\frac{4}{14}$?

$$\boxed{28}$$

5) Simplify: $\frac{2}{5} - \left(-\frac{1}{5}\right)$

$$\frac{2}{5} + \frac{1}{5} = \boxed{\frac{3}{5}}$$

6) Simplify: $2 - \frac{4}{5}$

$$\frac{2}{1} - \frac{4}{5} = \frac{10}{5} - \frac{4}{5} = \boxed{\frac{6}{5}}$$

7) Divide: $-\frac{1}{7} \div \frac{5}{7}$

$$-\frac{1}{7} \times \frac{7}{5} = \boxed{-\frac{1}{5}}$$

8) Multiply: $\left(\frac{1}{3}\right)\left(-\frac{3}{2}\right)$

$$\boxed{-\frac{1}{2}}$$

9) Calculate: $\frac{56}{81} \times \frac{27}{64}$

$$= \boxed{\frac{7}{24}}$$

10) Write: $-2\frac{1}{4}$ as an improper fraction

$$\boxed{-\frac{9}{4}}$$

11) Simplify: $-\frac{5}{7} + \frac{1}{3} - \left(-\frac{2}{5}\right)$

$$= \frac{-75}{105} + \frac{35}{105} + \frac{42}{105} = \boxed{\frac{2}{105}}$$

12) Simplify: $\left(-\frac{2}{3} \div \frac{1}{4}\right) - \left(\frac{4}{5} \times \frac{1}{6}\right)$

$$\left(-\frac{2}{3} \times \frac{4}{1}\right) - \left(\frac{4}{30}\right)$$

$$-\frac{8}{3} - \frac{4}{30}$$

$$-\frac{80}{30} - \frac{4}{30} = -\frac{84}{30} = \boxed{-\frac{14}{5}}$$

13) Simplify: $\left(-1\frac{1}{4}\right) - \left(-2\frac{2}{3}\right)$

$$-\frac{5}{4} + \frac{8}{3}$$

$$-\frac{15}{12} + \frac{32}{12} = \boxed{\frac{17}{12}}$$

14) Simplify: $\left(-\frac{3}{5}\right)^2$

$$\boxed{\frac{9}{25}}$$

15) Multiply: $(-2.72)(4.1)$

$$\boxed{-11.152}$$

16) Calculate: $6.1 + \frac{-2}{5} \times 10 - 1$

$$6.1 + -0.4 \times 10 - 1$$

$$6.1 + -4 - 1$$

$$\boxed{1.1}$$

17) Michael has $3\frac{1}{4}$ packages of paper to practice and study for his math exam.

If he uses $2\frac{3}{5}$ packages of paper, how much does he have left?

$$3\frac{1}{4} - 2\frac{3}{5}$$

$$\frac{13}{4} - \frac{13}{5} = \frac{65}{20} - \frac{52}{20}$$

$$\boxed{\frac{13}{20}}$$

18) A room measures 3.2m by 2.7m, what is its area?

$$(3.2)(2.7) = \boxed{8.64 \text{ m}^2}$$

19) There are about 3.8 L of paint in a gallon. About how many litres are in $2\frac{1}{2}$ gallons?

$$3.8 \times 2.5 = \boxed{9.5 \text{ L}}$$

20) Simplify: $\left(\frac{1}{2} - \frac{2}{3}\right) \times \left(\frac{2}{5} + \frac{1}{3}\right) \left(\frac{3}{6} - \frac{4}{6}\right) \times \left(\frac{6}{15} + \frac{5}{15}\right)$

$$-\frac{1}{6} \times \frac{11}{15} = \boxed{-\frac{11}{90}}$$

21) Simplify: $(-2)^2 \div 2(3-5) + 4$

$$4 \div 2(-2) + 4 = 2(-2) + 4$$

$$= -4 + 4$$

$$= 0$$

22) Simplify: $\left(\frac{1}{2}\right) \times \left(-\frac{2}{3}\right)^2$

$$\frac{1}{2} \times \frac{4}{9} = \frac{4}{18} = \boxed{\frac{2}{9}}$$

23) Simplify: $\left(\frac{1}{2} \times \frac{-2}{3}\right)^2 = \left(-\frac{2}{6}\right)^2 = \left(-\frac{1}{3}\right)^2 = \boxed{\frac{1}{9}}$

24) Simplify: $\frac{1}{2} - \frac{1}{2} \left(\frac{-2}{5} \div \frac{5}{10}\right) = \frac{1}{2} - \frac{1}{2} \left(-\frac{2}{5} \times \frac{10}{5}\right)$

$$= \frac{1}{2} - \frac{1}{2} \left(-\frac{20}{25}\right)$$

$$= \frac{1}{2} - \left(-\frac{20}{90}\right)$$

$$\begin{aligned} &-\frac{1}{2} + \frac{2}{5} \\ &-\frac{5}{10} + \frac{4}{10} \\ &\boxed{\frac{9}{10}} \end{aligned}$$

25) Simplify: $\frac{\frac{2}{3} + \frac{4}{5}}{\frac{4}{7} - 2\frac{1}{3}} \times (-3)^2 \div 2$

$$\frac{\frac{10}{15} + \frac{12}{15}}{\frac{4}{7} - \frac{7}{3}} \times 9 \div 2$$

$$\frac{\frac{22}{15}}{\frac{12}{21} - \frac{49}{21}} \times 9 \div 2$$

$$= \frac{22}{15} \times 9 \div 2$$

$$\begin{aligned} &\frac{22}{15} \div \frac{-37}{21} \times \frac{9}{7} \div \frac{2}{7} \\ &= \frac{22}{15} \times \frac{-21}{37} \times \frac{9}{7} \times \frac{1}{2} \\ &= \frac{-4158}{1110} = \boxed{\frac{-693}{185}} \end{aligned}$$

26) Simplify: $\frac{\frac{1}{2} + \frac{5}{8}}{-1\frac{2}{3} + \frac{5}{6}} \times (-2) \div 3$

$$\frac{\frac{4}{8} + \frac{5}{8}}{-\frac{5}{3} + \frac{5}{6}} \times (-2) \div 3$$

$$\frac{\frac{9}{8}}{-\frac{10}{6} + \frac{5}{6}} \times -2 \div 3$$

$$\frac{\frac{9}{8}}{-\frac{5}{6}} \times -\frac{2}{1} \div \frac{3}{1}$$

$$\frac{9}{8} \div -\frac{5}{6} \times -\frac{2}{1} \div \frac{3}{1}$$

$$\frac{9}{8} \times -\frac{6}{5} \times -\frac{2}{1} \times \frac{1}{3}$$

$$\frac{108}{120} = \boxed{\frac{9}{10}}$$