

Exercise 2.1

1) $\frac{3}{5}$

2) $1\frac{2}{3}$

3) 3

4) $-\frac{12+2}{3} = \boxed{-\frac{14}{3}}$

5) $5\frac{3}{8} = \frac{40+3}{8} = \boxed{\frac{43}{8}}$

6) $-3\frac{3}{4} = -\frac{12+3}{4} = \boxed{-\frac{15}{4}}$

7) $-3 = \boxed{\frac{-3}{1}}$

8) $-4 = \boxed{\frac{-4}{1}}$

9) $7 = \boxed{\frac{7}{1}}$

10) $-\frac{17}{4}$ ~~$4\frac{17}{4}$~~ $4\frac{17}{4} R1$
 $= \boxed{-4\frac{1}{4}}$

11) $\frac{13}{5}$ $5\frac{13}{5} R3$ $\boxed{2\frac{3}{5}}$

12) $-\frac{7}{6}$ $6\frac{7}{6} R1$ $\boxed{-1\frac{1}{6}}$

13) $\frac{9}{1} = \boxed{9}$

14) $\boxed{-12}$

15) $\boxed{7}$

16) $-\frac{2}{8} \div 2 = \boxed{\frac{-1}{4}}$

17) $\frac{3}{4} \cdot 8 = \boxed{\frac{24}{32}}$

18) ~~$\frac{5}{7} \cdot 5$~~ $-\frac{5}{7} \cdot 5 = \boxed{\frac{-25}{35}}$

19) $\frac{-4}{1} \cdot 3 = \frac{-4 \cdot 3}{1 \cdot 3} = \boxed{\frac{-12}{3}}$

Exercise 2.1 continued

$$20) \quad -\frac{2 \cdot 7}{1 \cdot 7} = \boxed{\frac{-14}{7}}$$

$$26) \quad -\frac{10a}{14} = -\frac{2 \cdot 5 \cdot a}{2 \cdot 7}$$

$$= -\frac{5 \cdot a}{7} \cdot \frac{\cancel{2}}{\cancel{2}}$$

$$= \boxed{\frac{-5a}{7}}$$

$$21) \quad \frac{6 \cdot 8}{1 \cdot 8} = \boxed{\frac{48}{8}}$$

$$22) \quad \frac{15}{45} = \frac{3 \cdot \cancel{5}}{9 \cdot \cancel{5}} \\ = \frac{3}{9} = \boxed{\frac{1}{3}}$$

$$27) \quad \frac{42x}{36x^2} = \frac{6 \cdot 7 \cdot x}{6 \cdot 6 \cdot x \cdot x} \\ = \frac{\cancel{6} \cdot \cancel{x}}{\cancel{6} \cdot x} \cdot \frac{7}{6 \cdot x}$$

$$= \boxed{\frac{7}{6x}}$$

$$23) \quad -\frac{48}{28} = -\frac{\cancel{4} \cdot 12}{\cancel{4} \cdot 7} \\ = \boxed{\frac{-12}{7}}$$

$$28) \quad \frac{3}{5} > \frac{2}{5}$$

$$29) \quad -\frac{7}{8} < -\frac{3}{8}$$

$$30) \quad -\frac{1}{7} > -\frac{3}{7}$$

$$31) \quad -\frac{1}{4} \cdot \frac{5}{5} \quad -\frac{2}{5} \cdot \frac{4}{4}$$

$$-\frac{5}{20} > -\frac{8}{20}$$

$$24) \quad \frac{42}{21} = \frac{2 \cdot 21}{21} = \frac{2 \cdot \cancel{21}}{\cancel{21}} \\ = \boxed{2}$$

$$32) \quad \frac{4 \cdot 7}{9 \cdot \frac{7}{7}} \quad \frac{10 \cdot 3}{21 \cdot 3}$$

$$\frac{28}{63} < \frac{30}{63}$$

$$25) \quad \frac{26x^3}{6x^2} = \frac{13 \cdot 2 \cdot x \cdot x \cdot x}{3 \cdot 2 \cdot x \cdot x} \\ = \frac{13 \cdot x}{3} \cdot \frac{\cancel{2}}{\cancel{2}} \cdot \frac{\cancel{x}}{\cancel{x}} \cdot \frac{\cancel{x}}{\cancel{x}} \\ = \boxed{\frac{13x}{3}}$$

$$33) \quad \frac{7 \cdot 5}{10 \cdot 5} \quad \frac{13 \cdot 2}{25 \cdot 2}$$

$$\frac{35}{50} > \frac{26}{50}$$