

Reasoning and Problem Solving

Multiply Fractions by Integers

Developing

1a. $\frac{6}{7} \times 8 = 6\frac{6}{7}$ or $\frac{48}{7}$ so 7 whole cartons need to be ordered.

2a. Cassie has used the incorrect denominator. The calculation should be $\frac{5}{6} \times 9 = 7\frac{3}{6}$ or $\frac{45}{6}$.

3a. $2\frac{1}{4}$ hours \times 4 weeks = 9 hours.
 $2\frac{1}{4}$ hours \times 5 weeks = $11\frac{1}{4}$ hours. Libby needs to practise for 5 weeks.

Expected

4a. $2\frac{2}{5} \times 7 = 16\frac{4}{5}$ or $\frac{84}{5}$ so 17 full cans need to be ordered.

5a. Nolan has created an incorrect image and has only shown the fraction. He needs to show 2 wholes for each fraction he created.

6a. $4\frac{3}{4}$ hours \times 3 weeks = $14\frac{1}{4}$ hours.
 $4\frac{3}{4}$ hours \times 4 weeks = 19 hours. Rachel needs to practise for 4 weeks.

Greater Depth

7a. $3\frac{4}{11} \times 9 = 30\frac{3}{11}$ so 31 whole pizzas need to be ordered.

8a. Sheraz has not simplified his answer correctly. The answer should be $10\frac{4}{5}$.

9a. $2\frac{5}{9}$ hours \times 4 weeks = $10\frac{2}{9}$ hours.
 $2\frac{5}{9}$ hours \times 5 weeks = $12\frac{7}{9}$ hours. Olivia needs to practise for 5 weeks.

Reasoning and Problem Solving

Multiply Fractions by Integers

Developing

1b. $1\frac{3}{5} \times 5 = 8$ so 8 bowls of fruit need to be prepared.

2b. Robbie has used the incorrect numerator. The calculation should be $2\frac{3}{5} \times 5 = 13$.

3b. $4\frac{3}{8}$ hours \times 3 weeks = $13\frac{1}{8}$ hours.
 $4\frac{3}{8}$ hours \times 4 weeks = $17\frac{1}{2}$ hours. Jayden needs to practise for 4 weeks.

Expected

4b. $3\frac{3}{7} \times 5 = 17\frac{1}{7}$ or $\frac{120}{7}$ so 18 whole sandwiches need to be made.

5b. Tanni has created an incorrect image and has shown 4 lots of $\frac{3}{4}$ instead of 4 lots of $\frac{3}{8}$.

6b. $3\frac{5}{6}$ hours \times 5 weeks = $19\frac{1}{6}$ hours.
 $3\frac{5}{6}$ hours \times 6 weeks = 23 hours. Hamza needs to practise for 5 weeks.

Greater Depth

7b. $2\frac{6}{7} \times 13 = 37\frac{1}{7}$ so 38 whole bread rolls need to be ordered.

8b. Elaine has shown an improper fraction within a mixed number. The answer should be $2\frac{5}{8}$.

9b. $\frac{17}{6}$ hours \times 5 weeks = $14\frac{1}{6}$ hours.
 $\frac{17}{6}$ hours \times 6 weeks = 17 hours. Mason needs to practise for 6 weeks.