

Name: Class:

Multiplying Mixed Numbers And Whole Numbers

Multiply.

1. $10\frac{1}{3} \times 7$ Write your answer as a mixed number in its lowest terms.

2. $2\frac{1}{3} \times 6$ Write your answer as a whole number.

3. $8 \times 4\frac{4}{7}$ Write your answer as a mixed number.

4. $6 \times 2\frac{2}{5}$ Write your answer as a Mixed number.

5. $3\frac{6}{7} \times 5$ Write your answer as a mixed number.

6. $9 \times 1\frac{2}{3}$ Write your answer as a Mixed number.

7. $4\frac{2}{3} \times 2$ Write your answer as a mixed number.

8. $1\frac{5}{7} \times 9$ Write your answer as a mixed number.

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1. $10\frac{1}{3} \times 7 = \frac{(10 \times 3) + 1}{3} \times \frac{7}{1} = \frac{31}{3} \times \frac{7}{1}$ ← Step 1: convert the mixed number to improper fraction.

$= \frac{31}{3} \times \frac{7}{1} = \frac{31 \times 7}{3 \times 1} = \frac{217}{3}$ ← Step 2: multiply the numerators and denominators.

$= \frac{217}{3} = 3 \overline{) 217}$ ← Step 3: convert your product to a mixed number.

$\begin{array}{r} 72 \\ - 21 \\ \hline 07 \\ - 6 \\ \hline 1 \end{array}$

Therefore, $10\frac{1}{3} \times 7 = 72\frac{1}{3}$.

2. $2\frac{1}{3} \times 6 = \frac{(2 \times 3) + 1}{3} \times \frac{6}{1} = \frac{7}{3} \times \frac{6}{1} = \frac{42}{3}$

$\frac{42}{3}$ in its lowest terms = $\frac{42 \div 3}{3 \div 3} = 14$ (3 is the G.C.F of 42 and 3)

So, $2\frac{1}{3} \times 6 = 14$.

3. $8 \times 4\frac{4}{7} = \frac{8}{1} \times \frac{(4 \times 7) + 4}{7} = \frac{8}{1} \times \frac{28 + 4}{7} = \frac{8}{1} \times \frac{32}{7}$

$= \frac{256}{7} = 36R4 = 36\frac{4}{7}$

So, $8 \times 4\frac{4}{7} = 36\frac{4}{7}$.

4. $6 \times 2\frac{2}{5} = \frac{6}{1} \times \frac{(2 \times 5) + 2}{5} = \frac{6}{1} \times \frac{10 + 2}{5} = \frac{6}{1} \times \frac{12}{5} = \frac{72}{5} = 14R2 = 14\frac{2}{5}$

So, $6 \times 2\frac{2}{5} = 14\frac{2}{5}$.

5. $3\frac{6}{7} \times 5 = \frac{(3 \times 7) + 6}{7} \times \frac{5}{1} = \frac{27}{7} \times \frac{5}{1} = \frac{135}{7}$

$= \frac{135}{7} = 19R2 = 19\frac{2}{7}$

So, $3\frac{6}{7} \times 5 = 19\frac{2}{7}$.