

Name: ..... Class: .....

## Multiplying Mixed Numbers And Whole Numbers

Multiply.

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

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

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

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

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

f.  $22\frac{1}{2} \times 3$  Write your answer as a mixed number in its lowest terms.

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

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

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

j.  $6\frac{2}{4} \times 7$  Write your answer as a mixed number.

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a.  $10\frac{1}{3} \times 7 = \frac{(10 \times 3) + 1}{3} \times \frac{7}{1} = \frac{31}{3} \times \frac{7}{1}$  ← **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.

$$\begin{array}{r} 72 \\ 3 \overline{) 217} \\ \underline{- 21} \phantom{0} \\ 07 \\ \underline{- 6} \\ 1 \end{array}$$

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

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

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

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

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

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

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

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

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

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

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

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