

5.2 Multiply Fractions

ex. $\frac{2}{5}$ of $\frac{1}{3}$ $= \frac{2}{5} \times \frac{1}{3} = \boxed{\frac{2}{15}}$ $\frac{3}{4}$ of $\frac{1}{2}$ $= \frac{3}{4} \times \frac{1}{2} = \boxed{\frac{3}{8}}$ $\frac{2}{3}$ of $\frac{5}{7}$ $= \frac{2}{3} \times \frac{5}{7} = \boxed{\frac{10}{21}}$

Always pre-cancel/reduce when possible (divide a numerator/denominator pair by their GCF).

ex. $\frac{3}{5} \times \frac{4}{9}$ $= \boxed{\frac{4}{15}}$ $\frac{5}{6} \times \frac{9}{10}$ $= \boxed{\frac{3}{4}}$ $\frac{6}{7} \times \frac{14}{27}$ $= \boxed{\frac{4}{9}}$

ex. $\frac{4}{5} \times \frac{5}{7} \times \frac{21}{8}$ $= \boxed{\frac{3}{2}}$ or $\boxed{1\frac{1}{2}}$

ex. James, John and Jane are three siblings. John is $\frac{4}{5}$ as tall as James. Jane's height is $\frac{2}{3}$ of John's height.

a) What fraction of James' height is Jane's height?

James $\rightarrow$ John $\rightarrow$ Jane $\frac{2}{3} \times \frac{4}{5} = \boxed{\frac{8}{15}}$ of James

b) If James is 150 cm tall, how tall is Jane?

$\frac{8}{15} \times 150$ $= \boxed{80 \text{ m}}$