

\* Simplify  $\frac{\left(\frac{m}{2} + \frac{2m}{3}\right)}{\left(\frac{1}{m} - \frac{m}{2}\right)} \rightarrow \frac{\circ}{\circ}$

using order of operations

$$\frac{(3)m}{(3)2} + \frac{2m(2)}{(3)(2)} \rightarrow \frac{3m}{6} + \frac{4m}{6} \rightarrow \frac{7m}{6}$$

$$\frac{(2)1}{(2)m} - \frac{m(m)}{2(m)} \rightarrow \frac{2}{2m} - \frac{m^2}{2m} \rightarrow \frac{2-m^2}{2m}$$

$$\therefore \frac{\frac{7m}{6}}{\frac{2-m^2}{2m}} = \frac{7m}{6} \cdot \frac{2m}{2-m^2}$$

reciprocal

$$= \frac{7m}{6} \cdot \frac{2m}{2-m^2} = \frac{7m}{\cancel{2}3} \cdot \frac{\cancel{2}m}{2-m^2}$$

$$\boxed{\frac{7m^2}{3(2-m^2)}} = \boxed{\frac{7m^2}{6-3m^2}}$$