


5 - 3

**Multiply or Divide
to Solve Equations**



**Still want to "undo" the operations,
just like when we added/subtracted,
but now we will multiply/divide.**

Ex: $\frac{4x}{4} = \frac{48}{4}$

$x = 12$

Ex: $3 \cdot \frac{x}{3} = 11 \cdot 3$

$x = 33$

Ex: $\frac{-126}{9} = \frac{9x}{9}$

$-14 = x$

Ex: $36 = \frac{x}{4}$

$-4 \cdot 36 = \frac{x}{-4} \cdot 4$

$-144 = x$

reciprocals: two numbers whose product is 1
(x)

Ex: 4 and $\frac{1}{4}$ $\frac{4}{1} \cdot \frac{1}{4} = \frac{4}{4} = 1$

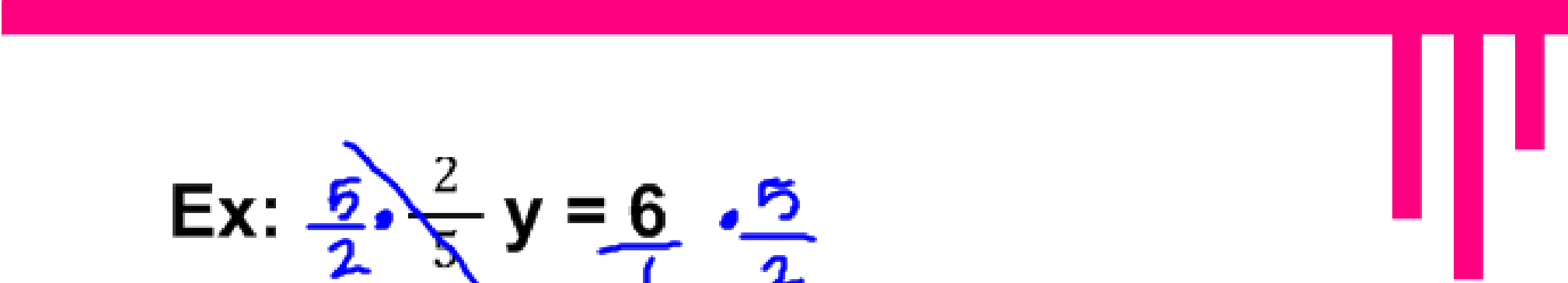
Ex: $\frac{2}{3}$ and $\frac{3}{2}$

Find the reciprocal of...

a.) $\frac{1}{3}$ $\frac{3}{1}$ $\textcircled{3}$

b.) $\frac{5}{2}$ $\textcircled{\frac{2}{5}}$


c.) $\frac{-2}{1}$ $\textcircled{\frac{1}{-2}}$



Ex: $\frac{5}{2} \cdot \frac{2}{5} y = \frac{6}{1} \cdot \frac{5}{2}$

$$y = \frac{30}{2}$$

$$y = 15$$



Ex: $8 = \frac{3}{4} \cdot \frac{4}{3} x$

$$\frac{24}{4} = x$$

$$6 = x$$



Homework:

5-3 WS (odds)