

## Worksheet 8B

#7)  $\frac{x > 0}{3}$      $\frac{x < 0}{3}$      $\frac{x = 0}{3}$

$\frac{\text{no solution}}{2}$

$\frac{\text{true for all } x}{3}$

$$\#7) 3 + \frac{-3}{4}(5+x) = \frac{3}{5}\left(\frac{5x}{4} - \frac{5}{4}\right)$$

$$3 - \left(\frac{15}{4} - \frac{3}{4}x\right) =$$

$$3 + \frac{-15}{4} + \frac{3}{4}x = \frac{3}{4}x - \frac{3}{4}$$

$\quad \quad \quad -\frac{3}{4}x \quad \quad -\frac{3}{4}x$

$$\frac{4}{4} \cdot 3 + \frac{-15}{4} = \frac{-3}{4}$$

true for  
all x!

$$\frac{12}{4} + \frac{-15}{4} = \frac{-3}{4}$$

$$9) \overset{10 \times}{\left[ \frac{2}{5}(a-5) \right]} = \left[ \frac{3}{10} \left( 5 + \frac{4}{3}a \right) \right] \times 10 \quad \begin{array}{l} > 0 : 2 \\ < 0 : 2 \\ = 0 : 2 \end{array}$$

$$\frac{20}{5}(a-5) = \frac{30}{10} \left( 5 + \frac{4}{3}a \right) \quad \begin{array}{l} \text{N.S.} : 8 \\ \text{A.T.} : 0 \end{array}$$

$$4(a-5) = 3 \left( 5 + \frac{4}{3}a \right) = 3(5) + \cancel{3} \cdot \left( \frac{4}{\cancel{3}}a \right)$$

$$\begin{array}{rcl} 4a - 20 & = & 15 + 4a \\ -4a & & -4a \end{array}$$

$$\begin{array}{l} 15 + \frac{12}{3}a \\ 15 + 4a \end{array}$$

$$-20 = 15 \quad \times \quad \text{NO SOLUTION}$$

