

Quiz 9

$$\boxed{1} \quad (x^2 - 6)(x^2 + 1) = 0 \Rightarrow$$

$x^2 = 6, \cancel{x^2 = -1} \rightarrow x = \pm\sqrt{6}$

$$\boxed{2} \quad x + 2 = (x - 4)^2 = x^2 - 8x + 16$$
$$0 = x^2 - 9x + 14 = (x - 7)(x - 2)$$

$x = 2, 7$ $x = 7$ ok
 $x = 2$ fail

$$\boxed{3} \quad |2x - 9| = 5 \Rightarrow 2x - 9 = \pm 5 \Rightarrow$$
$$2x = 9 \pm 5 \Rightarrow x = \frac{9 \pm 5}{2} = 7, 2$$

$$\boxed{4} \quad \frac{2}{x-3} = \frac{5x}{x^2-9} \Rightarrow 5x = 2(x+3)$$
$$= 2x + 6$$
$$3x = 6, \boxed{x = 2}$$

$\frac{2(x+3)}{x^2-9}$