

$$7.) \frac{a+2}{a^2-6a+8} \div \frac{a^2+a-2}{a^2-16}$$

$$\frac{a+2}{(a-4)(a-2)} \cdot \frac{(a-1)(a+2)}{(a+4)(a-4)}$$

Keep It Change It Flip It

$$\frac{\cancel{a+2}}{(a-4)(a-2)} \cdot \frac{(a+4)\cancel{(a-4)}}{(a-1)\cancel{(a+2)}}$$

$$\boxed{\frac{a+4}{(a-2)(a-1)}} \quad a \neq 2, 1$$

8.) Inverse Variation

$$x_1 y_1 = x_2 y_2$$

$$4(10) = 3y$$

$$\frac{40}{3} = \frac{3y}{3}$$

$$\boxed{\frac{40}{3} = y}$$

9.) Direct Variation

$$\frac{y_1}{x_1} = \frac{y_2}{x_2}$$

$$\frac{350}{5^2} = \frac{y}{10^2}$$

you  
have  
to square  
x b/c

$$\frac{350}{25} = \frac{y}{100}$$

y varies  
directly  
as the  
"square"  
of x

$$\frac{25y}{25} = \frac{35000}{25}$$

$$\boxed{y = 1400}$$