



Name: _____



Simplify the following

a) $\frac{3x+9}{x+1} \times \frac{2}{x+3}$

$$\frac{6}{x+1}$$

h) $\frac{5x+10}{x-7} \div \frac{x+2}{2x-14}$

$$10$$

b) $\frac{4x-4}{2x+10} \times \frac{x+5}{x-1}$

$$2$$

i) $\frac{6x-30}{4x+12} \div \frac{x-5}{2}$

$$\frac{3}{x+3}$$

c) $\frac{x+4}{2x-6} \times \frac{x-3}{2x+8}$

$$\frac{1}{4}$$

j) $\frac{4x-4}{9x+45} \div \frac{13x-13}{6x+30}$

$$\frac{8}{39}$$

d) $\frac{3x-9}{4x-4} \times \frac{x-1}{x-3}$

$$\frac{3}{4}$$

k) $\frac{8x+4}{x+3} \div \frac{2x+1}{x^2-9}$

$$4(x-3)$$

e) $\frac{4x+8}{x+1} \times \frac{2x+2}{x^2-4}$

$$\frac{8}{x-2}$$

l) $\frac{x^2+x-2}{x^2+10x+21} \div \frac{x^2-1}{x^2-49}$

$$\frac{(x+2)(x-7)}{(x+1)(x+3)}$$

f) $\frac{4x+4}{x+2} \times \frac{x^2-4}{x+1}$

$$4(x-2)$$

m) $\frac{7x-28}{x+2} \div \frac{x^2-16}{4x+8}$

$$\frac{28}{x+4}$$

g) $\frac{x^2+9x+20}{x+4} \times \frac{x+2}{x^2+7x+10}$

$$1$$

n) $\frac{x^2+5x-14}{x^2-11x+28} \div \frac{x^2-x-56}{x^2-7x+12}$

$$\frac{(x-2)(x-3)}{(x-8)(x-7)}$$

Exam question:

Simplify $\frac{3x^2+3x-18}{x+3} \div \frac{x^2+2x-8}{3x+12}$

Leave your answer in its simplest form

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

