Simplifying algebraic fractions *lesson handout*

Step check

On your whiteboard, or here.

1 Simplify $\frac{12}{18}$

2 Factorise $4x + 12$

3 Factorise $x^2 + 6x$

4 Factorise $x^2 + 7x + 10$

Part 1 · We do

Simplify fully $\frac{4x + 8}{3x + 6}$

$= \frac{4(x + 2)}{\qquad}$

Answer _____

Part 1 · You do

Simplify fully $\frac{6x - 12}{x - 2}$

$= \frac{\qquad}{\qquad}$

Answer _____

Part 1 · You do

Simplify fully $\frac{x^2 + 4x}{3x + 12}$

$= \frac{\qquad}{\qquad}$

Answer _____

Before Part 2

Find the missing number.

1 $x^2 + 8x + 12 = (x + 2)(x + \quad)$

2 $x^2 + 7x + 12 = (x + 3)(x + \quad)$

3 $x^2 + 4x - 5 = (x - 1)(x + \quad)$

Part 2 · We do

Simplify fully $\frac{x^2 + 9x + 14}{x + 7}$

$= \frac{(x + 7)(\quad)}{(x + 7)}$

Answer _____

Part 2 · You do

Simplify fully $\frac{x^2 + 8x + 15}{x + 5}$

$= \frac{\qquad}{\qquad}$

Answer _____

Part 2 · You do

Simplify fully $\frac{x^2 + x - 6}{x + 3}$

$= \frac{\qquad}{\qquad}$

Answer _____