

Day 3 Simplifying cont'd

Note Title

30/11/2017

Simplify & identify non permissible values: $(x-4)(x-5)$

Some trickier examples: $\frac{x^3 - 9x^2 + 20x}{x^3 - 25x} \rightarrow \frac{x(x^2 - 9x + 20)}{x(x^2 - 25)}$

① Factor First!

- GCF
- simple messy diff \square 's

$$\frac{\cancel{x}(x-4)\cancel{(x-5)}}{\cancel{x}(x+5)\cancel{(x-5)}}$$

$$x \neq \pm 5, 0$$

② Identify

③ Simplify

$$\frac{x-4}{x+5}$$

e.g. 2 $\frac{3m^2 - 15m}{3m^2 - 16m + 5} \rightarrow \frac{3m(m-5)}{(3m-1)(m-5)}$ $m \neq 5, \frac{1}{3}$

a.c = 15 $3m^2 - 16m + 5$

b = -16 $3m^2 - 15m - 1m + 5$

$$\frac{3m(m-5) \quad | \quad -1(m-5)}{(3m-1)(m-5)}$$

$$\frac{3m}{3m-1}$$

e.g. 3 $\frac{2x^2 + 3xy + y^2}{3x^2 + 2xy - y^2} \rightarrow \frac{(2x+y)(x+y)}{(3x-y)(x+y)}$

$\frac{-3}{2}$ $\frac{3x^2 + 2xy - y^2}{3x^2 + 3xy - xy - y^2}$

$x \neq \frac{y}{3} \neq -y$

$$\frac{3x(x+y) \quad | \quad -y(x+y)}{(3x-y)(x+y)}$$

$$\frac{2x+y}{3x-y}$$

DAY 3 HWORK

mañana - quiz on simplifying