

Bellwork Alg 2A Thursday, May 18, 2017

Simplify each expression. Hint, factoring is helpful. State restrictions on the variables.

1. $\frac{2x^2 - x - 21}{x^2 - 9}$

2. $\frac{x^2 - 9x + 20}{3x - 15} \cdot \frac{2x + 8}{x^2 - 16}$

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ANSWERS

Simplify each expression. Hint, factoring is helpful. State restrictions on the variables.

1. $\frac{2x^2 - x - 21}{x^2 - 9} = \frac{(x+3)(2x-7)}{(x+3)(x-3)}$

$= \frac{2x-7}{x-3}$
 $x \neq \pm 3$

ACROSS: -42 , -7 , $+6$, -1
 DOWN: x , $+3$

$2x$	$2x^2$	$+6x$
-7	$-7x$	-21

2. $\frac{x^2 - 9x + 20}{3x - 15} \cdot \frac{2x + 8}{x^2 - 16}$

$= \frac{(x-4)(x-5)}{3(x-5)} \cdot \frac{2(x+4)}{(x+4)(x-4)}$

$\frac{+20}{-4 \times -5}$
 -9
 $(x-4)(x-5)$

$= \frac{2}{3}$
 $x \neq 5, \pm 4$