7.3 Multiplying and Dividing Rational Expressions

Fractions Review:

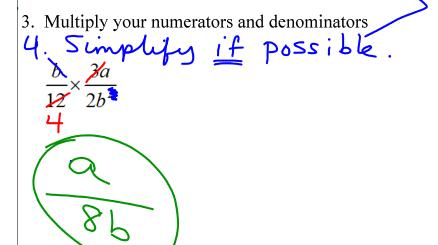
$$\frac{2}{3} \times \frac{4}{5} = \frac{8}{15}$$

$$\frac{\frac{7}{8} \div \frac{5}{4}}{\frac{7}{8} \times \frac{4}{5}} = \frac{28}{40} = \boxed{\frac{7}{10}}$$

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Steps:

- 1. Factor numerators and denominators
- 2. Simplify anything possible



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$$=\frac{\frac{12x^2}{15} \div \frac{3x}{2y}}{\frac{3x}{5}} \times \frac{3y}{\frac{3x}{5}}$$

$$=\frac{xy}{15}$$

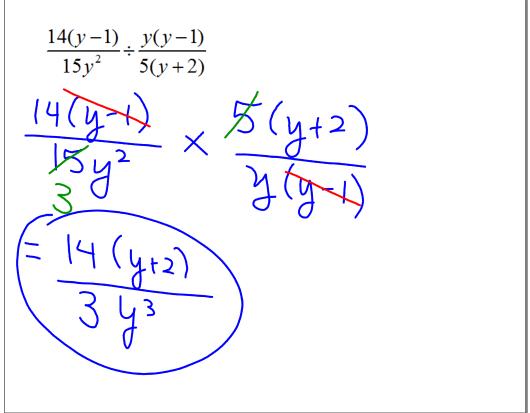
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$$\frac{2m(m+1)}{15m(n-1)} \times \frac{2(n-1)}{m}$$

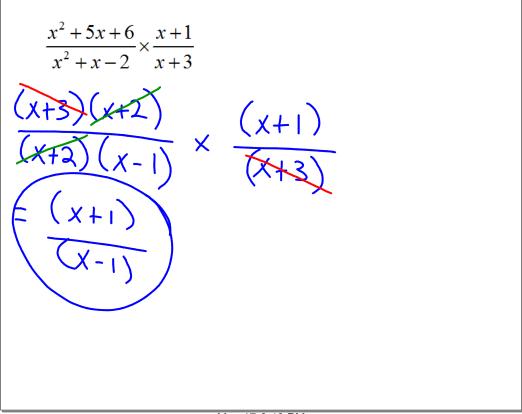
$$= \frac{4m(m+1)}{5m}$$

$$= \frac{4m(m+1)}{5m}$$
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$$\frac{12m^{2}-3}{2m^{2}n-2mn^{2}} \div \frac{2m+1}{5mn-5n^{2}}$$

$$\frac{|2m^{2}-3|}{2m^{2}n-2mn^{2}} \times \frac{5mn-5n^{2}}{2m+1}$$

$$= \frac{3(4m^{2}-1)}{2m+1} \times \frac{5k(m+1)}{2m+1}$$

$$= \frac{3(2m+1)(2m-1)}{2m} \times \frac{5mn-5n^{2}}{2m+1}$$

$$= \frac{3(2m+1)(2m-1)}{2m} \times \frac{3mn-5n^{2}}{2m}$$

$$= \frac{3(2m+1)(2m-1)}{2m} \times \frac{3mn-5n^{2}}{2m}$$

$$= \frac{3(2m+1)(2m-1)}{2m} \times \frac$$

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Assignment:

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3 and 5 odds 10, 12 and 15 odds