

5-5 Products and Quotients of Rational Expressions

Examples... pg 234 WE

$$\textcircled{1} \frac{\overset{2}{\cancel{-10}}}{\cancel{21} \underset{3}{}} \div \frac{\overset{15}{\cancel{15}}}{\cancel{28} \underset{3}{}} \cdot \frac{\overset{4}{\cancel{28}}}{\cancel{15} \underset{3}{}} = \frac{-8}{9}$$

$$\textcircled{3} \frac{\overset{5}{\cancel{5x}}}{\cancel{-3}} \cdot \frac{\overset{2}{\cancel{-6}}}{\cancel{10} \underset{2}{}} = \textcircled{x}$$

$$\textcircled{5} \frac{\overset{4}{\cancel{8t}}}{\cancel{3}} \div \frac{\overset{2t}{\cancel{2t}}}{\cancel{9}} \cdot \frac{\overset{3}{\cancel{9}}}{\cancel{2t}} = \textcircled{12t}$$

$$\textcircled{8} \frac{x^2}{4} \cdot \frac{xy}{6} \cdot \frac{2y^2}{x} \cdot \frac{3}{xy} = \textcircled{3y}$$

$$\textcircled{12} \frac{t-2}{t+3} \cdot \frac{(t+3)(t-1)}{t^2+2t-3} = \textcircled{\frac{t-1}{t+1}}$$

$$\frac{(t+1)(t-2)}{t^2-t-2}$$

$$\textcircled{15} \frac{(x+2)(x-2)}{x^2-4} \cdot \frac{2x^2-3x-2}{4x^2-1} = \textcircled{\frac{x+2}{x-1}}$$

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

$$\begin{array}{c}
 \textcircled{21} \quad \frac{\cancel{(3x-2y)}(x+y)}{\cancel{3x^2+xy-2y^2}} \cdot \frac{\cancel{(3x+y)}(x-y)}{\cancel{3x^2-2xy-y^2}} \cdot \frac{\cancel{3x+2y}}{\cancel{3x+y}} = \frac{x+y}{x+3y} \\
 \frac{\cancel{3x^2-xy-2y^2}}{\cancel{(3x+2y)}(x-y)} \cdot \frac{\cancel{3x^2+7xy-y^2}}{\cancel{(3x-2y)}(x+3y)}
 \end{array}$$

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2-2 even \otimes 18 \otimes 12