Algebra 2 w/ Trig

5.4 Multiplying and Dividing Rational Expressions

Warm-Up:

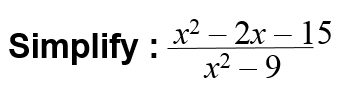
**Factor the expression.**

HINT FOR #3:

1. 10*x* – 5*x*2 2. *x*2 – 2*x* – 483. *x*3 – 125

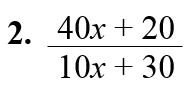
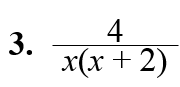
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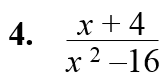
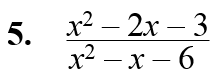
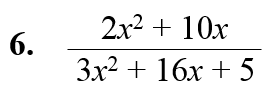
Example 1: Simplify a Rational Expression



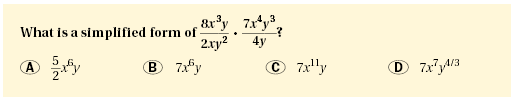
YOU TRY:

**Simplify the expression, if possible.**

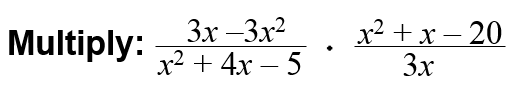
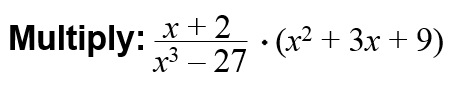
  

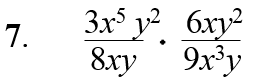
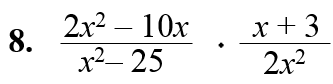
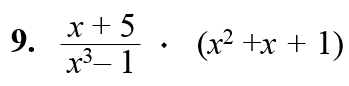
Example 2: Multiple Choice!



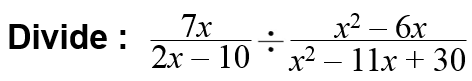
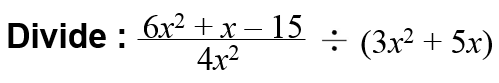
Example 3: Multiplying Rational Expressions Example 4: Multiply a Rational Expression by a Polynomial

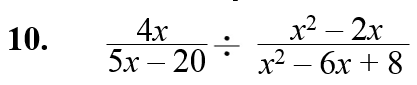
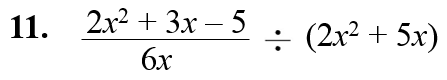
YOU TRY: **Multiply the expressions. Simplify the result.**

Example 5: Dividing Rational Expressions Example 6: Divide a Rational Expression by a Polynomial

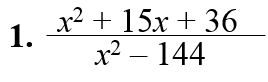
 

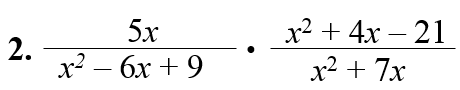
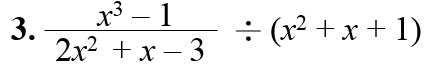
YOU TRY: **Divide the expressions. Simplify the result.**

KEEP GOING:

**Perform the operation.**



1. **A cube has edge length** *x***. A rectangular prism has a square base with side length** *x* **and height** *x*+2**. Write an expression in simplest form for the ratio of the surface area of the prism to the surface area of the cube.**

Hw: Section 5.4 p. 331 #5-41 every other odd