Section 5.2 Multiplying and Dividing Radical Expressions

Radical Expressions and Equations

Name: _____

Date: _____

Learning Goal 5.3

Apply order of operations to radical expressions.

Multiply. Simplify the products where possible. State any restrictions on the variable, if any.

a.
$$5\sqrt{3}(\sqrt{6})$$

b.
$$-2\sqrt[3]{11}(4\sqrt[3]{2}-3\sqrt[3]{3})$$

c.
$$(4\sqrt{2}+3)(\sqrt{7}-5\sqrt{14})$$

d.
$$-2\sqrt{11c}\left(4\sqrt{2c^3}-3\sqrt{3}\right)$$

Divide. Simplify the products where possible. State any restrictions on the variable, if any.

a.
$$\frac{2\sqrt{51}}{\sqrt{3}}$$

b.
$$\frac{-7}{2\sqrt[3]{9\mu}}$$

c.
$$\frac{2}{3\sqrt{5}-4}$$

d.
$$\frac{6}{\sqrt{4x} + 1}$$