CHAPTER 3 Polynomials
3.3 Discover the Exponent Laws
Dividing Powers With the Same Base

Example:
Write each of the following as a single power. Then, evaluate.

a) $\frac{6^5}{6^3}$

b) $\frac{y^7}{y^5}$ when $y = 9$

Solution:

a) $\frac{6^5}{6^3} = 6^{5-3}$
$= 6^2$
$= 36$

b) $\frac{y^7}{y^5} = y^{7-5}$
$= y^2$
$= 9^2$
$= 81$

Practice: Write each of the following as a single power. Then, evaluate.

1. $\frac{8^7}{8^4}$

2. $\frac{v^{11}}{v^8}$, when $v = -2$

Answers:

1. 512 **2.** –8