Name:_____ Class: _____

Practice - Using Exponents to Describe Numbers

1) For each power, identify the base and the exponent.

a) 5^2

base: _____

exponent: _____

b) 2^3

base: _____

exponent: _____

c) $(-3)^4$

base: _____

exponent: _____

d) -3^4

base: _____

exponent: _____

e) $\left(\frac{2}{3}\right)^2$

base: _____

exponent: _____

f) 2.1^6

base: _____

exponent: _____

2) Write each expression as a power (do not evaluate).

a) $6 \times 6 \times 6 \times 6 \times 6 \times 6 \times 6$

b) $9 \cdot 9 \cdot 9 \cdot 9$

c) $(-7)(-7)(-7)(-7)(-7)$

d) $-(0.4)(0.4)(0.4)(0.4)$

e) $\left(\frac{2}{5}\right) \times \left(\frac{2}{5}\right) \times \left(\frac{2}{5}\right) \times \left(\frac{2}{5}\right)$

3) Write each power as repeated multiplication (expanded form), then evaluate.

a) 3^4

b) 5^3

c) $(-2)^2$

d) -5^3

e) $\left(\frac{1}{4}\right)^2$

f) $-(-0.4)^5$

4) Evaluate each of the following.

a) 6^3

b) 2^7

c) -4^2

d) $\left(-4\right)^2$

e) 1^{12}

f) $\left(-\frac{4}{5}\right)^2$