Practice 12.1

Name_____

Evaluate the exponential form.

1) 12^0

2) -14^0

3) -3^2

4) $\left(\frac{4}{5}\right)^3$

Simplify. Assume that no denominator is zero and 0^0 is not considered.

5) $4a^3 \cdot 2a^5$

6) $(x^5y^3)(x^8y^7z^0)$

Simplify the expression. Assume that variables represent nonzero numbers.

7) $(x^7)^4(x^4)$

8) $(-4x^4y^5)^2$

9) $(ab^3)^2(ab)^6$

10) $\left(\frac{x}{5}\right)^2$

11) $\left(\frac{x+y}{4}\right)^3$

12) Simplify the expression. Assume that variables represent nonzero numbers.

$(n^6)^3(m^5n)^4$

13) $\left(\frac{4}{a - b}\right)^2$

14) $\left(\frac{3x^2}{z^2}\right)^3$

15) $\left(\frac{xy^7}{z^7}\right)^0$

1) 1
2) -1
3) -9
4) $\frac{64}{125}$
5) $8a^8$
6) $x^{13}y^{10}$
7) x^{32}
8) $16x^8y^{10}$
9) a^8b^{12}
10) $\frac{x^2}{25}$
11) $\frac{(x + y)^3}{64}$
12) $m^{20}n^{22}$
13) $\frac{16}{(a - b)^2}$
14) $\frac{27x^6}{z^6}$
15) 1