p. 111

Zero + Negative Exponents

Jan 20/16

1. 5^0

$= 1$

3. 3^{-1}

FLIP

$= \frac{1}{3^1}$

13.

$$\frac{1}{3^{-1}}$$

$$= \frac{3^1}{1}$$

$$= 3$$

28. $7^4 \times 7^5$

$= 7^9$

32. $5^{-7} \div 5^{-2}$

$= 5^{-7-(-2)}$

$= 5^{-5}$

$= \frac{5}{1}$

$= \frac{1}{5^5}$

36. $(8^{-1})^{-5}$

$= 8^{5}$

41. $8^{4} \times 8^{-5} \div 8^{-2}$

$= 8^{4+(-5)-(-2)}$

$= 8^{-1+2}$

$= 8^{1}$

55. $\frac{(7^{-3})^0}{(0.1^{-1})-2}$

$= \frac{1}{(0.1)^2}$

$= \frac{1}{0.01} = 100$

58. $3^0 + 3^3$

$= 1 + 27$

$= 28$

65. $\frac{1}{2^{-2}} + \frac{1}{3^{-1}}$

$= 2^2 + 3^1$

$= 4 + 3$

$= 7$

Power of a Product Rule

$$(7a^2 5m^3)^9$$

multiply the exponents

$$= 7^9 a^{18} 5^9 m^{27}$$

$$= 40353607 a^{18} 5^9 m^{27}$$

Homework Pg 111

#2 to 73

Checked by for actual #'s