

2.5 Zero Exponents

Class Notes – Expand the expression, then condense it.

LP#1 $\frac{3^5}{3^5}$	$\frac{5^4}{5^4}$
LP#2 $\frac{x^7}{x^7}$	$\frac{y^{10}}{y^{10}}$
LP#3 $\frac{2^4 \cdot h^2}{2^4 \cdot h^2}$	$\frac{7^5 \cdot p^3}{7^5 \cdot p^3}$

Class Notes – Use the division rule and express your answers using powers.

LP#4 $\frac{3^5}{3^5}$	$\frac{5^4}{5^4}$
LP#5 $\frac{x^7}{x^7}$	$\frac{y^{10}}{y^{10}}$
LP#6 $\frac{2^4 \cdot h^2}{2^4 \cdot h^2}$	$\frac{7^5 \cdot p^3}{7^5 \cdot p^3}$

Complete the rule for zero exponents below by comparing the two sets of class notes above.

$x^0 =$	$(xyz)^0 =$
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Class Notes – Simplify the following expressions.

LP#7 5^0	13^0	$(-11)^0$	$(-13)^0$
LP#8 y^0	m^0	$(3b)^0$	$(-7g)^0$

LP#9 $(xy)^0$	xy^0	$3b^0$	$-7g^0$
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Review – Simplify the following expressions.

R#1 8^0	10^0	$(-3)^0$	$(-7)^0$
R#2 2^0	w^0	$(-6)^0$	$4x^0$
R#3 z^0	$(-13)^0$	$8m^0$	$(-b)^0$

Homework – Simplify the following expressions.

- 1) 14^0 2) 21^0 3) x^0 4) p^0 5) n^0
- 6) $(-2)^0$ 7) $(-8)^0$ 8) $(-q)^0$ 9) $-(11)^0$ 10) $-(k)^0$
- 11) $4d^0$ 12) $-17x^0$ 13) $-20g^0$ 14) $10h^0$ 15) $-25g^0$
- 16) $(7x)^0$ 17) $(mn)^0$ 18) $(abc)^0$ 19) $(-h)^0$ 20) $(-13ab)^0$

Synthesis

- 21) $x^2 \cdot x^4 \cdot y^0$ 22) $a^5 \cdot b^0 \cdot a^7$ 23) $h^7 \cdot j^3 \cdot j^0$ 24) $\frac{x^9 y^0}{x^3}$ 25) $\frac{a^{10} b^0}{a^4}$
- 26) $\frac{m^9}{m^7 n^0}$ 27) $\frac{b^{13} b^3}{c^0}$ 28) $\frac{g^{10} h^0 i^6}{i^2}$ 29) $x^{12} \cdot x^4 \cdot y^{10} \cdot y^0$ 30) $d^2 \cdot e^4 \cdot d^6 \cdot e \cdot f^0$