



Worksheet 1

1. Find the value of the following:

a) 8^2

b) 6^3

c) 2^6

d) 11^2

e) 5^4

f) 2^5

g) $(-4)^3$

h) $(-5)^4$

2. Write in exponential form.

a) $5 \times 5 \times 5 \times 5 \times 5 =$ _____

b) $(-4) \times (-4) \times (-4) =$ _____

c) $2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 2 =$ _____

d) $(-8) \times (-8) \times (-8) \times (-8) =$ _____

e) $3 \times 3 \times 3 \times 3 \times 3 \times 3 \times 3 \times 3 =$ _____



MATHEMATICS WORKSHEET OF CLASS VII

Topic: Ch4: Exponents and Powers

Worksheet 2

1. Express each of the following numbers as a product of powers of their prime factors.

a) 36 _____ b) 72 _____

c) 128 _____ d) 625 _____

e) 343 _____ f) 540 _____

g) 512 _____ h) 729 _____

2. Simplify.

a) 2×103 _____ b) 72×2 _____

c) 33×42 _____ d) 52×23 _____

e) 3×24 _____ f) 112×0 _____

g) 24×32 _____ h) 152×0 _____

i) $(-3) \times (-4)^2$ _____ j) 62×33 _____

k) $(-2)^4 \times (-10)$ _____ l) $(-3)^2 \times (-2)^4$ _____

m) 28×0 _____ n) $(-7)^3 \times 2$ _____



MATHEMATICS WORKSHEET OF CLASS VII

Topic: Ch4: Exponents and Powers

Worksheet 3—Help

1. Simplify and express each of the following in exponential form using laws of exponents.

a) $2^2 \times 2^4 \times 2^5$ _____

b) $7^{12} \div 7^4$ _____

c) $(4^2)^3$ _____

d) $2^3 \times 5^3$ _____

e) $a^4 \times a^7$ _____

f) $5^{12} \div 5^4$ _____

2. Say true or false and justify your answer.

a) $3^4 \times 6^2 = 18^6$ _____

c) $4^0 = 0$ _____

d) $5^2 > 2^5$ _____

e) $9^3 \times 9^6 = 9^9$ _____

f) $2^4 \times 2^5 = 2^{20}$ _____

g) $(a^x)^y = a^{xy}$ _____

h) $6^2 < 2^6$ _____



Topic: Ch4: Exponents and Powers
Worksheet 3—Foundation

1. Simplify and write the answer in exponential form.

a) $(4^2)^3 \div 4^4$

b) $5^{10} \times 5^4 \times 5^{18}$

c) $y^{25} \times y^{50}$

d) $9^5 \times 10^5$

e) $15^{20} \div 15^5$

f) $(5^5 \div 5^3) \times 5^1$

g) $10^0 \times 6^0$

h) $7^{18} \times 7^6$

2. Fill in the blanks.

a) $8 \times 8 \times 8 \times 8$ in exponential form with base 4 is _____.

b) $4 \times 4 \times 4 \times 4 \times 4$ in exponential form with base 2 is _____.

c) $9 \times 9 \times 9$ in exponential form with base 3 is _____.

d) $16 \times 16 \times 16$ in exponential form with base 4 is _____.

e) 25×25 in exponential form with base 5 is _____.

f) 64×64 in exponential form with base 4 is _____.

g) 27×27 in exponential form with base 3 is _____.