

Name: _____

Date: _____

BLM 3-5

Target B-1 Extra Practice

1. Write each expression as a power. Then, evaluate.

	Power	Evaluate
a) 6×6	_____	_____
b) $4 \times 4 \times 4$	_____	_____
c) $9 \times 9 \times 9 \times 9 \times 9$	_____	_____
d) $2 \times 2 \times 2 \times 2 \times 2 \times 2$	_____	_____

2. Write each expression as a power. Identify the base and the exponent in each power. Then, evaluate.

	Power	Base	Exponent	Evaluate
a) $5 \times 5 \times 5$	_____	_____	_____	_____
b) $1 \times 1 \times 1 \times 1 \times 1 \times 1 \times 1$	_____	_____	_____	_____
c) $7 \times 7 \times 7 \times 7 \times 7 \times 7$	_____	_____	_____	_____
d) 305	_____	_____	_____	_____

3. Write each power as repeated multiplication. Then, evaluate.

	Repeated Multiplication	Evaluate
a) 6^3	_____	_____
b) 2^5	_____	_____
c) 3^4	_____	_____
d) 10^6	_____	_____
e) 4^2	_____	_____
f) 20^2	_____	_____

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4. Write each power as repeated multiplication. Then, evaluate.

	Repeated Multiplication	Evaluate
a) $(-2)^4$	_____	_____
b) -2^4	_____	_____
c) $(-4)^3$	_____	_____
d) -4^3	_____	_____
e) $-(-6)^3$	_____	_____
f) $-(-6)^4$	_____	_____

5. Complete the table.

Repeated Multiplication	Exponential Form	Value
a) $(-3) \times (-3) \times (-3) \times (-3)$		
b) $(-2) \times (-2) \times (-2) \times (-2) \times (-2)$		
c)	$(-6)^5$	
d)		-125

6. Bacteria reproduce by splitting in two. If a single bacteria divides every 20 min, how many bacteria will a single bacteria produce after 8 h?

a) Write the answer in exponential form. _____

b) Calculate the answer. _____

c) What assumption did you make to answer the question?

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BLM 1-1
(continued)**Extra Practice Answers**

1. a) 6^2 , 36 b) 4^3 , 64
 c) 9^5 , 59 049 d) 2^6 , 64
 2. a) 5^3 , 5, 3, 125 b) 1^7 , 1, 7, 1
 c) 7^6 , 7, 6, 117 649
 d) 305^1 , 305, 1, 305
 3. a) $6 \times 6 \times 6$, 216
 b) $2 \times 2 \times 2 \times 2 \times 2$, 32
 c) $3 \times 3 \times 3 \times 3$, 81
 d) $10 \times 10 \times 10 \times 10 \times 10 \times 10$, 1 000 000
 e) 4×4 , 16 f) 20×20 , 400
 4. a) $(-2) \times (-2) \times (-2) \times (-2)$, 16
 b) $-(2 \times 2 \times 2 \times 2)$, -16
 c) $(-4) \times (-4) \times (-4)$, -64
 d) $-(4 \times 4 \times 4)$, -64
 e) $-[(-6) \times (-6) \times (-6)]$, 216
 f) $-[(-6) \times (-6) \times (-6) \times (-6)]$, -1296

5. Example:

Repeated Multiplication	Exponential Form	Value
a) $(-3) \times (-3) \times (-3) \times (-3)$	$(-3)^4$	81
b) $(-2) \times (-2) \times (-2) \times (-2) \times (-2)$	$(-2)^5$	-32
c) $(-6) \times (-6) \times (-6) \times (-6) \times (-6)$	$(-6)^5$	-7776
d) $(-5) \times (-5) \times (-5)$	$(-5)^3$	-125

6. a) 2^{24} b) 16 777 216
 c) Example: That no bacteria died.