



Powers and Number Properties

- 1 Can 96 be divided by 6

96**6**

A

No

B

Yes

- 2 Find the greatest common factor of these numbers

9, 3

A

7

B

25

C

3

D

21

E

19

F

10

- 3 Find the greatest common factor of these numbers

14, 16, 12

A

4

B

18

C

8

D

6

E

2

F

7

- 4 Find the lowest common multiple of these numbers

9, 7

A

379

B

124

C

62

D

250

E

63

F

60

- 5 Find the greatest common factor of these numbers from their factorization by choosing the set of shared factors

$$15(= 3 \times 5)$$

$$18(= 2 \times 3 \times 3)$$

A

3

B

13

C

9

D

8

E

4

F

1

- 6 Find the lowest common multiple of these numbers from their factorization by choosing the set of all distinct factors

$$16(= 2 \times 2 \times 2 \times 2)$$

$$11(= 11)$$

A

172

B

1,053

C

699

D

86

E

176

F

173

- 7 Show the prime factorization of this number as exponents

72

A

$$2^4 \cdot 3^2$$

B

$$2^3 \cdot 3^2$$

C

$$2 \cdot 4 \cdot 3^2$$

D

$$2^2 \cdot 3^2$$

- 8 Show the prime factorization of this number as exponents

84

A

$$2^2 \cdot 3 \cdot 7 \cdot 13$$

B

$$2^2 \cdot 21$$

C

$$2^2 \cdot 3 \cdot 5 \cdot 7$$

D

$$2^2 \cdot 3 \cdot 7$$



Powers and Number Properties

- 9** Show the prime factorization of this number as exponents

75

A	$3 \cdot 5^2$
B	$3 \cdot 5^2 \cdot 11$
C	$3 \cdot 5^3$
D	$3^2 \cdot 5^2$

- 10** Find the square root of the given perfect square

$$\sqrt{25}$$

A 5	B 7	C 8
D 4	E 9	F 6

- 11** Find the integer that can be squared to give the perfect square shown

$$?^2 = 100$$

A 10,000	B 9
C 7	D 10
E 9,801	F 12

- 12** Simplify the radical

$$\sqrt{16}$$

A 6	B 4	C 5
D 1	E 3	

- 13** Find the answer when this number is raised to its exponent

$$(-4)^3$$

A 256	B -12
C -64	D -61
E -4	F -1,024

- 14** Find the answer when this number is raised to its exponent

$$5^2$$

A 5	B 25	C 625
D 125	E 28	F 1

- 15** What is the multiplication factor for this power of 10?

$$10^{-3}$$

A 0.001	B 10	C 0.01
D 100	E 0.1	F 1,000
F 1		

- 16** Is this number a perfect square?

107

A Not a Perfect Square
B Perfect Square



Powers and Number Properties

17 How can this perfect square be represented as a squared integer?

81

A 11^2	B 12^2	C 7^2
D 9^2	E 6^2	F 8^2

18 Which of these numbers is NOT a perfect square?

81, 96, 100, 121

A 121	B 100
C 81	D 96

19 Find the square root of the given perfect square

$\sqrt{36}$

A 3	B 1,089	C 8
D 6	E 5	F 1,521

20 Find the simplified form of this number raised to its exponent

11×11

A 13^4	B 2^{11}
C 11×2	D 11^3
E 12^5	F 11^2

21 Find the simplified form of this number raised to its exponent

10×10

A 10×2	B 11^6
C 12^6	D 10^3
E 2^{10}	F 10^2