# Examining Powers and Bases

Name:

**Solve each problem.**

**1)** Which equation has only 4 as a possible value of x?

A. $x^2 = 64$

B. $x^2 = 12$

C. $x^3 = 64$

D. $x^3 = 12$

**2)** Which equation has both 10 and -10 as a possible value of x?

A. $x^2 = 100$

B. $x^3 = 1000$

C. $x^2 = 1000$

D. $x^3 = 20$

**3)** Which equation has only 7 as a possible value of x?

A. $x^3 = 21$

B. $x^3 = 49$

C. $x^3 = 343$

D. $x^2 = 343$

**4)** Which equation has both 4 and -4 as a possible value of x?

A. $x^2 = 16$

B. $x^3 = 64$

C. $x^3 = 16$

D. $x^3 = 8$

**5)** Which equation has both 5 and -5 as a possible value of x?

A. $x^2 = 10$

B. $x^2 = 25$

C. $x^3 = 125$

D. $x^2 = 125$

**6)** Which equation has only 10 as a possible value of x?

A. $x^2 = 100$

B. $x^3 = 100$

C. $x^2 = 30$

D. $x^3 = 1000$

**7)** Which equation has both 8 and -8 as a possible value of x?

A. $x^3 = 512$

B. $x^2 = 512$

C. $x^2 = 64$

D. $x^2 = 16$

**8)** Which equation has both 7 and -7 as a possible value of x?

A. $x^2 = 49$

B. $x^3 = 343$

C. $x^3 = 14$

D. $x^3 = 49$

**9)** Which equation has both 6 and -6 as a possible value of x?

A. $x^3 = 12$

B. $x^2 = 216$

C. $x^2 = 36$

D. $x^3 = 36$

**10)** Which equation has only 9 as a possible value of x?

A. $x^3 = 729$

B. $x^2 = 81$

C. $x^3 = 81$

D. $x^2 = 729$

**Answers**

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____



| 1-10 | 90 | 80 | 70 | 60 | 50 | 40 | 30 | 20 | 10 | 0 |
|---|---|---|---|---|---|---|---|---|---|---|

Examining Powers and Bases Name: **Answer Key**

**Solve each problem.**

**1)** Which equation has only 4 as a possible value of x?

A. $x^2 = 64$
B. $x^2 = 12$
C. $x^3 = 64$
D. $x^3 = 12$

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A. $x^2 = 100$
B. $x^3 = 1000$
C. $x^2 = 1000$
D. $x^3 = 20$

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A. $x^2 = 16$
B. $x^3 = 64$
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A. $x^2 = 10$
B. $x^2 = 25$
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**6)** Which equation has only 10 as a possible value of x?

A. $x^2 = 100$
B. $x^3 = 100$
C. $x^2 = 30$
D. $x^3 = 1000$

**7)** Which equation has both 8 and -8 as a possible value of x?

A. $x^3 = 512$
B. $x^2 = 512$
C. $x^2 = 64$
D. $x^2 = 16$

**8)** Which equation has both 7 and -7 as a possible value of x?

A. $x^2 = 49$
B. $x^3 = 343$
C. $x^3 = 14$
D. $x^3 = 49$

**9)** Which equation has both 6 and -6 as a possible value of x?

A. $x^3 = 12$
B. $x^2 = 216$
C. $x^2 = 36$
D. $x^3 = 36$

**10)** Which equation has only 9 as a possible value of x?

A. $x^3 = 729$
B. $x^2 = 81$
C. $x^3 = 81$
D. $x^2 = 729$

**Answers**

1. C
2. A
3. C
4. A
5. B
6. D
7. C
8. A
9. C
10. A



| 1-10 | 90 | 80 | 70 | 60 | 50 | 40 | 30 | 20 | 10 | 0 |
|---|---|---|---|---|---|---|---|---|---|---|