



## Examining Powers and Bases

Name: \_\_\_\_\_

Solve each problem.

1) Which equation has both 5 and -5 as a possible value of  $x$ ?  
A.  $x^3 = 25$   
B.  $x^3 = 10$   
C.  $x^2 = 10$   
D.  $x^2 = 25$

2) Which equation has only 9 as a possible value of  $x$ ?  
A.  $x^2 = 27$   
B.  $x^3 = 27$   
C.  $x^3 = 729$   
D.  $x^3 = 81$

3) Which equation has only 4 as a possible value of  $x$ ?  
A.  $x^3 = 16$   
B.  $x^2 = 64$   
C.  $x^3 = 64$   
D.  $x^2 = 12$

4) Which equation has both 10 and -10 as a possible value of  $x$ ?  
A.  $x^3 = 20$   
B.  $x^2 = 1000$   
C.  $x^2 = 20$   
D.  $x^2 = 100$

5) Which equation has both 8 and -8 as a possible value of  $x$ ?  
A.  $x^3 = 512$   
B.  $x^2 = 64$   
C.  $x^2 = 512$   
D.  $x^3 = 16$

6) Which equation has only 5 as a possible value of  $x$ ?  
A.  $x^2 = 25$   
B.  $x^2 = 125$   
C.  $x^3 = 125$   
D.  $x^2 = 15$

7) Which equation has only 8 as a possible value of  $x$ ?  
A.  $x^3 = 64$   
B.  $x^3 = 24$   
C.  $x^3 = 512$   
D.  $x^2 = 64$

8) Which equation has both 6 and -6 as a possible value of  $x$ ?  
A.  $x^3 = 36$   
B.  $x^3 = 216$   
C.  $x^2 = 216$   
D.  $x^2 = 36$

9) Which equation has both 7 and -7 as a possible value of  $x$ ?  
A.  $x^2 = 14$   
B.  $x^3 = 49$   
C.  $x^2 = 343$   
D.  $x^2 = 49$

10) Which equation has both 9 and -9 as a possible value of  $x$ ?  
A.  $x^3 = 18$   
B.  $x^2 = 729$   
C.  $x^2 = 81$   
D.  $x^2 = 18$

## Answers

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

5. \_\_\_\_\_

6. \_\_\_\_\_

7. \_\_\_\_\_

8. \_\_\_\_\_

9. \_\_\_\_\_

10. \_\_\_\_\_



## Examining Powers and Bases

Name: **Answer Key**

Solve each problem.

1) Which equation has both 5 and -5 as a possible value of  $x$ ?  
A.  $x^3 = 25$   
B.  $x^3 = 10$   
C.  $x^2 = 10$   
D.  $x^2 = 25$

2) Which equation has only 9 as a possible value of  $x$ ?  
A.  $x^2 = 27$   
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5) Which equation has both 8 and -8 as a possible value of  $x$ ?  
A.  $x^3 = 512$   
B.  $x^2 = 64$   
C.  $x^2 = 512$   
D.  $x^3 = 16$

6) Which equation has only 5 as a possible value of  $x$ ?  
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C.  $x^3 = 125$   
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C.  $x^3 = 512$   
D.  $x^2 = 64$

8) Which equation has both 6 and -6 as a possible value of  $x$ ?  
A.  $x^3 = 36$   
B.  $x^3 = 216$   
C.  $x^2 = 216$   
D.  $x^2 = 36$

9) Which equation has both 7 and -7 as a possible value of  $x$ ?  
A.  $x^2 = 14$   
B.  $x^3 = 49$   
C.  $x^2 = 343$   
D.  $x^2 = 49$

10) Which equation has both 9 and -9 as a possible value of  $x$ ?  
A.  $x^3 = 18$   
B.  $x^2 = 729$   
C.  $x^2 = 81$   
D.  $x^2 = 18$

## Answers

1. **D**

2. **C**

3. **C**

4. **D**

5. **B**

6. **C**

7. **C**

8. **D**

9. **D**

10. **C**