Examining Powers and Bases

Name: _____

Solve each problem.

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

A. $x^2 = 64$
B. $x^3 = 16$
C. $x^2 = 16$
D. $x^2 = 8$

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

A. $x^2 = 21$
B. $x^2 = 343$
C. $x^3 = 343$
D. $x^3 = 21$

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

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

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

A. $x^3 = 27$
B. $x^3 = 81$
C. $x^2 = 27$
D. $x^3 = 729$

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

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

6) Which equation has only 5 as a possible value of x?

A. $x^2 = 25$
B. $x^3 = 15$
C. $x^3 = 25$
D. $x^3 = 125$

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

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

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

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

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

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

10) Which equation has only 8 as a possible value of x?

A. $x^2 = 64$
B. $x^3 = 24$
C. $x^2 = 512$
D. $x^3 = 512$

Answers

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

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1. **C**

2. **C**

3. **B**

4. **D**

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5. **A**

6. **D**

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Math