

**Directions: Select ALL the correct answers.**Select all possible values for  $x$ .

$$x^2 = 300$$

- ☐  $30\sqrt{10}$
- ☐  $-30\sqrt{10}$
- ☐  $10\sqrt{30}$
- ☐  $10\sqrt{3}$
- ☐  $-10\sqrt{30}$
- ☐  $-10\sqrt{3}$

**Match the square roots with the correct numbers.**

11

50

10

40.5

9

12

$\sqrt{121}$



$\sqrt{144}$



$\sqrt{81}$



$\sqrt{100}$

**Evaluate the following expressions.**

$2 + 3\sqrt{49} = \boxed{\phantom{000}}$

$\sqrt[3]{1000} \div 5 = \boxed{\phantom{000}}$

$3\sqrt{9} - 4\sqrt[3]{64} = \boxed{\phantom{000}}$

**Simplify each of the following expressions.**

$\sqrt[3]{8} = \boxed{\phantom{000}}$

$\sqrt[3]{343} = \boxed{\phantom{000}}$

$\sqrt[3]{1,331} = \boxed{\phantom{000}}$

$\sqrt[3]{216} = \boxed{\phantom{000}}$

**Directions: Select all the correct answers.**

Which of the following describes the positive solution to the equation below?

$$x^2 = 5$$

- ☐ The solution is a rational number.
- ☐ The solution is a repeating decimal.
- ☐ The solution is an irrational number.
- ☐ The solution is greater than two but less than three.
- ☐ The solution is greater than one but less than two.
- ☐ The solution is greater than zero but less than one.

$$x^3 = 11$$

The equation above has .When  $x = -\sqrt[3]{11}$ ,  $x$  is  to the equation.When  $x = \sqrt[3]{11}$ ,  $x$  is  to the equation.When  $x = \frac{11}{3}$ ,  $x$  is  to the equation.

$$x^2 = 17$$

The equation above has .When  $x = -\sqrt{17}$ ,  $x$  is  to the equation.When  $x = -\sqrt{34}$ ,  $x$  is  to the equation.When  $x = \frac{17}{2}$ ,  $x$  is  to the equation.

**Directions: Select ALL the correct answers.**

Select all possible values for  $x$ .

$$x^2 = 300$$

- ☐  $30\sqrt{10}$
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- ☐  $10\sqrt{30}$
- ☐  $10\sqrt{3}$
- ☐  $-10\sqrt{30}$
- ☐  $-10\sqrt{3}$

**Match the square roots with the correct numbers.**

11   50   10   40.5   9   12

$$\sqrt{121} \longleftrightarrow$$

$$\sqrt{144} \longleftrightarrow$$

$$\sqrt{81} \longleftrightarrow$$

$$\sqrt{100} \longleftrightarrow$$

**Evaluate the following expressions.**

$$2 + 3\sqrt{49} = \boxed{\phantom{00}}$$

$$\sqrt[3]{1000} \div 5 = \boxed{\phantom{00}}$$

$$3\sqrt{9} - 4\sqrt[3]{64} = \boxed{\phantom{00}}$$

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$$\sqrt[3]{343} = \boxed{\phantom{00}}$$

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**Directions: Select all the correct answers.**

Which of the following describes the positive solution to the equation below?

$$x^2 = 5$$

- ☐ The solution is a rational number.
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$$x^3 = 11$$

The equation above has .

When  $x = -\sqrt[3]{11}$ ,  $x$  is  to the equation.

When  $x = \sqrt[3]{11}$ ,  $x$  is  to the equation.

When  $x = \frac{11}{3}$ ,  $x$  is  to the equation.

$$x^2 = 17$$

The equation above has .

When  $x = -\sqrt{17}$ ,  $x$  is  to the equation.

When  $x = -\sqrt{34}$ ,  $x$  is  to the equation.

When  $x = \frac{17}{2}$ ,  $x$  is  to the equation.