Math - Grade 8 Review Questions

Squares and Square Roots:

1. Find the area of a square with each side length.

   a) 8 units b) 10 units c) 3 units

2. Use a diagram to show that each number below is a square number.

   a) 1 b) 144 c) 121 d) 900

3. Find the side length of a square with each area.

   a) $100 m^2$ b) $64 cm^2$ c) $81 m^2$ d) $400 cm^2$

4. Find the square of each number.

   a) 4 b) 6 c) 2 d) 15

5. The floor of a large room is a square. It's area is $144 m^2$.

   a) Find the length of a side of the room.
   b) How much baseboard is needed to go around the room?

13. Use a number line to estimate the square roots of the following numbers:

a) $\sqrt{45}$ b) $\sqrt{17}$ c) $\sqrt{27}$

14. Which whole number is each square root closer to?

a) $\sqrt{131}$ b) $\sqrt{94}$ c) $\sqrt{55}$

15. Find the approximate side length of each square. Round to one decimal place. (*Watch your units)

a) $43\ cm^2$ b) $200\ m^2$

c) $11\ mm^2$ d) $371\ cm^2$

16. Mallory wants to fence in her square back garden to keep the deer out of her vegetables. Her garden has an area of $311\ m^2$.

a) What is the approximate side lengths of her garden? Round two decimal places.

b) How many metres of fence will she need to go around her whole garden? Round two decimal places.

6. Find the answer.

a) 8^2 b) 3^2 c) 1^2 d) 7^2

7. Find the square root of each number.

a) 25 b) 81 c) 64 d) 169

8. Solve.

a) $\sqrt{16}$ b) $\sqrt{121}$ c) $\sqrt{36}$ d) $\sqrt{1}$

9. List all of the factors of the numbers below (a, b, c, d). Which numbers are squares?

a) 225 b) 500 c) 324 d) 160

10. Find the square root of each number.

a) 3^2 b) 6^2 c) 10^2 d) 117^2

11. Find the square of each number.

a) $\sqrt{4}$ b) $\sqrt{121}$ c) $\sqrt{225}$ d) $\sqrt{676}$

12. Order from least to greatest.

a) $\sqrt{36}$, 36, 4, $\sqrt{9}$ b) $\sqrt{400}$, $\sqrt{100}$, 19, 15

c) $\sqrt{81}$, 81, $\sqrt{100}$, 11 d) $\sqrt{49}$, $\sqrt{64}$, $\sqrt{36}$, 9