

Exponents and Roots HW *Answers*

1. $\sqrt{9} = 3$ because $3 \cdot 3 = 9$

2. $\sqrt{225} = 15$ because $15 \cdot 15 = 225$

3. $\sqrt{484} = 22$ because $22 \cdot 22 = 484$

4. $\sqrt{196} = 14$ because $14 \cdot 14 = 196$

5. $3^2 = (\underline{3})(\underline{3}) = \underline{9}$, so 3 is a square root of 9.

6. $8^2 = (\underline{8})(\underline{8}) = \underline{64}$, so 8 is a square root of 64.

7. $13^2 = (\underline{13})(\underline{13}) = \underline{169}$, so 13 is a square root of 169.

8. What is the radicand of $\sqrt{81}$? 81

9. Name 3 perfect squares. 4, 9, 16
answers may vary

10. Which set contains all irrational numbers?

A. $\sqrt{3}, \pi, 4\sqrt{5}$

~~B.~~ $\frac{5}{9}, \sqrt{3}, 0.\bar{3}$

~~C.~~ $0, \frac{3}{4}, 1.914$

~~D.~~ $\sqrt{\frac{1}{2}}, 2\sqrt{5}, \sqrt{\frac{25}{5}}$

12. Which phrase does not describe a rational number?

A. integer number

B. repeating decimal

C. terminating decimal

D. non-repeating, non-terminating decimal

this is irrational

11. Which number below is an example of a natural number?

A. -2

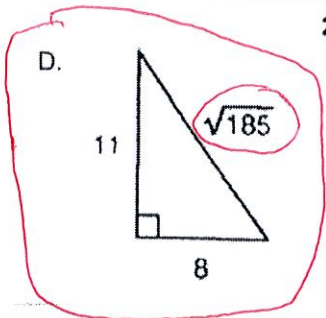
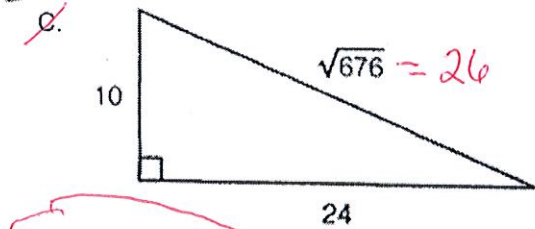
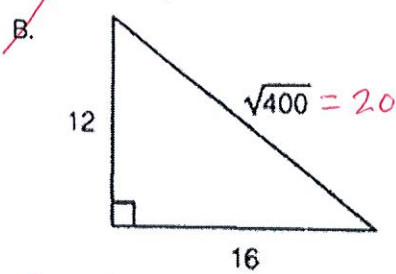
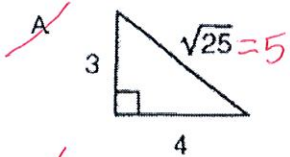
B. $\frac{2}{5}$

C. 3

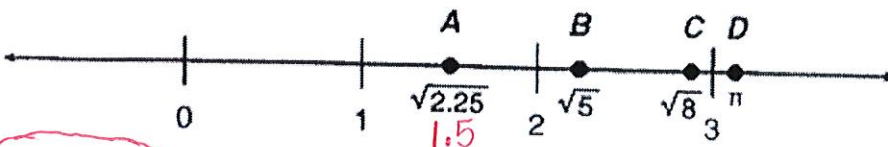
D. 4.5

counting number

13. Which triangle has an irrational number as one of its side lengths?



14. Which point on the number line represents a rational number?



- A. Point A
- B. Point B
- C. Point C
- D. Point D

15. Terri is playing a math card game and has dealt each player four math cards.

Lisa: 2, $\sqrt{2}$, -5, $\frac{1}{2}$

Ben: 0.435, 0.5, $\sqrt{25}$, 0 *end or repeat*

Kari: π , 2, 6, -2

Terri: $\sqrt{200}$, π , $\sqrt{50}$, 1.43256744376665...

Which person's hand contains all rational numbers?

- A. Lisa
- B. Ben
- C. Kari
- D. Terri