Rational Approximations

1. At what position on the number line is the red dot located?
   - A. \( \sqrt{\pi} \)
   - B. \( \sqrt{2} \)
   - C. \( \pi \)
   - D. \( \sqrt{5} \)

2. Determine which two values the following number is between.
   \( \sqrt{250} \)
   - A. 15.6 and 15.7
   - B. 15.8 and 15.9
   - C. 15.9 and 16
   - D. 15.7 and 15.8

3. At what position on the number line is the red dot located?
   - A. \( \sqrt{29} \)
   - B. \( \sqrt{39} \)
   - C. \( \sqrt{49} \)
   - D. \( \sqrt{78} \)

4. Determine which two values the following expression is between.
   \( \frac{4\pi}{5} \)
   - A. 2 and 3
   - B. 1 and 2
   - C. 4 and 5
   - D. 3 and 4

5. At what position on the number line is the red dot located?
   - A. \( \sqrt{21} \)
   - B. \( \sqrt{31} \)
   - C. \( \sqrt{62} \)
   - D. \( \sqrt{41} \)

6. Determine which two values the following expression is between.
   \( 3\sqrt{7} \)
   - A. 5 and 6
   - B. 7 and 8
   - C. 4 and 5
   - D. 6 and 7

7. Determine which two values the following expression is between.
   \( 2\sqrt{41} \)
   - A. 12.7 and 12.8
   - B. 13 and 13.1
   - C. 12.8 and 12.9
   - D. 12.9 and 13

8. Directions: Select the correct location on the number line.
Determine the value of \( 2\sqrt{7} \).

9. At what position on the number line is the red dot located?
   - A. \( \sqrt{24} \)
   - B. \( \sqrt{30} \)
   - C. \( \sqrt{18} \)
   - D. \( \sqrt{16} \)

10. Determine which two values the following expression is between.

    \( 2\sqrt{5} \)
    - A. 4.46 and 4.47
    - B. 4.45 and 4.46
    - C. 4.44 and 4.45
    - D. 4.47 and 4.48

11. Directions: Drag each tile to the correct box. Use rational approximations to place the irrational numbers in order from least to greatest.

    - \( \sqrt{42} \)
    - \( \sqrt{27} \)
    - \( 2\sqrt{14} \)
    - <
    - <

12. Determine which two values the following number is between.

    \( \frac{3}{\sqrt{150}} \)
    - A. 7 and 8
    - B. 5 and 6
    - C. 6 and 7
    - D. 4 and 5

13. Identify the missing symbol.

    \( \sqrt{26} \ ? \sqrt{42} \)
    - A. >
    - B. =
    - C. <

14. Directions: Select all the correct answers. Use estimation to determine which of the following numbers are between 4.5 and 4.9.

    - \( \frac{2\pi}{\sqrt{85}} \)
    - \( \sqrt{22} \)
    - \( \frac{3\pi}{2} \)
    - \( \sqrt{11} \)
    - \( \frac{3}{\sqrt{115}} \)

15. Determine which two values the following number is between.

    \( \sqrt{57} \)
    - A. 7.6 and 7.7
    - B. 7.8 and 7.9
    - C. 7.5 and 7.6
    - D. 7.7 and 7.8

16. Determine which two values the following expression is between.

    \( \pi^2 \)
    - A. 9 and 9.61
B. 9.61 and 10.24
C. 10.24 and 10.89
D. 10.89 and 11.56

17. Identify the missing symbol.

\[ 4\sqrt{15} \ ? \ 240 \]
A. =
B. >
C. <

18. Determine which two values the following number is between.

\[ \sqrt[3]{176} \]
A. 5.61 and 5.62
B. 5.6 and 5.61
C. 5.59 and 5.6
D. 5.62 and 5.63

19. Identify the missing symbol.

\[ \sqrt{182} - \sqrt{8} \ ? \ \pi^2 \]
A. >
B. <
C. =

20. Determine which two values the following number is between.

\[ \sqrt{11} \]
A. 3.31 and 3.32
B. 3.32 and 3.33
C. 3.3 and 3.31
D. 3.29 and 3.3