

Evaluate each expression. The first one is done for you.

1.  $\sqrt{8 + 1} = \sqrt{9}$

\_\_\_\_\_

2.  $\sqrt{7 - 6}$

\_\_\_\_\_

3.  $\sqrt{18 - 2}$

\_\_\_\_\_

4.  $\sqrt{36} + 10$

\_\_\_\_\_

5.  $15 - \sqrt{25}$

\_\_\_\_\_

6.  $\sqrt{49} - \sqrt{4}$

\_\_\_\_\_

7.  $\sqrt{\frac{64}{16}}$

\_\_\_\_\_

8.  $5\sqrt{9}$

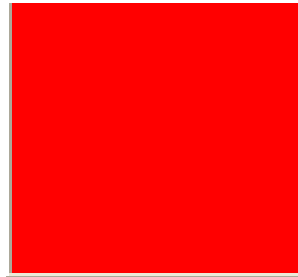
\_\_\_\_\_

9.  $\sqrt{\frac{100}{4}}$

\_\_\_\_\_

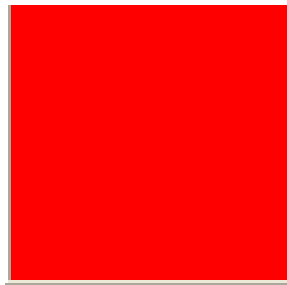
**Do Your  
Perfect  
Square and  
Cube Number  
Lines**

Also, get out your work from  
yesterday to grade.... 1-19 and  
9 - 12.



The area of the square above is  $81 \text{ cm}^2$ . What is the length of one side of the square?

- A. 9 cm
- B. 81 cm
- C. 5 cm
- D. 4.5 cm

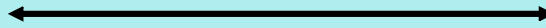


The length of one of the sides of the square above is 12 cm. What is the area of the square?

- A.  $49 \text{ cm}^2$
- B.  $144 \text{ cm}^2$
- C.  $100 \text{ cm}^2$
- D.  $24 \text{ cm}^2$
- E.  $36 \text{ cm}^2$

Graph  $\sqrt{18}$  on the number line.  
Wait!!! Is 18 a perfect square?

$$\sqrt{18}$$

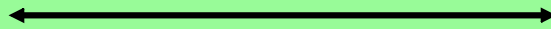


So, what two integers does the square root of 18 fall between?

Which is it closer to (this is important for later) ?

Graph  $\sqrt{2}$  on the number line.

$$\sqrt{2}$$



So, what two integers does the square root of 2 fall between?

Which is it closer to (this is important for later) ?

Each square root is between two integers. Name the integers.

1.  $\sqrt{10}$

2.  $\sqrt{8}$

3 and 4;  $\sqrt{10}$  is between  $\sqrt{9}$  and  $\sqrt{16}$

\_\_\_\_\_

3.  $\sqrt{19}$

4.  $\sqrt{33}$

\_\_\_\_\_

\_\_\_\_\_

5.  $\sqrt{15}$

6.  $\sqrt{39}$

\_\_\_\_\_

\_\_\_\_\_

How can we estimate the square root of 40?

$$\sqrt{40}$$

Is it a perfect square?

Hmmm...what perfect squares does it fall between?

What is it closest to?

How can we check an estimate?

How can we estimate the square root of 18?

$$\sqrt{18}$$

Is it a perfect square?

Hmmm...what perfect squares does it fall between?

What is it closest to?

How can we check an estimate to one decimal place?



Use your number line to find each value. Round to the nearest tenth.  
The first one is done for you.

$$\begin{array}{r} 7. \sqrt{12} \\ \phantom{7. \sqrt{12}} \quad 3.5 \\ \phantom{7. \sqrt{12}} \quad \underline{\times 3.5} \\ \phantom{7. \sqrt{12}} \quad 175 \\ \phantom{7. \sqrt{12}} \quad \underline{+1050} \\ \phantom{7. \sqrt{12}} \quad 12.25 \\ \hline 3.5 \end{array}$$

$$8. \sqrt{18}$$

$$9. \sqrt{7}$$



### Example 1:

What is the best estimate for  $\sqrt{39}$ ?

- A) 6.9282...
- B) 5.9160...
- C) 7.0710...
- D) 6.2449...

### Example 2:

Which of the following numbers is between 2 and 3?

- A)  $\sqrt{2}$
- B)  $\sqrt{3}$
- C)  $\sqrt{6}$
- D)  $\sqrt{10}$

### Example 3:

Which of the following square roots is between 5 and 6?

- A.  $\sqrt{15}$
- B.  $\sqrt{21}$
- C.  $\sqrt{29}$
- D.  $\sqrt{48}$

Example 4:



The area of the square above is  $110 \text{ cm}^2$ . What is the length of a side of the square?

- A.** between 9 and 10 centimeters
- B.** between 10 and 11 centimeters
- C.** between 7 and 8 centimeters
- D.** between 6 and 7 centimeters

Find each square root.

1.  $\sqrt{100} = 10$

2.  $\sqrt{144}$

3.  $\sqrt{-36}$

4.  $\sqrt{121} = 11$

5.  $\sqrt{-148}$

6.  $-\sqrt{4}$

7.  $-\sqrt{9}$

8.  $-\sqrt{49}$

9.  $\sqrt{256}$

10.  $\sqrt{529}$

11.  $\sqrt{361}$

12.  $-\sqrt{196}$

find each square root to the nearest tenth.

13.  $-\sqrt{2.25}$

14.  $\sqrt{38}$

15.  $\sqrt{249}$

16.  $\sqrt{131}$

17.  $\sqrt{7}$

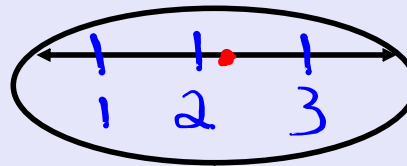
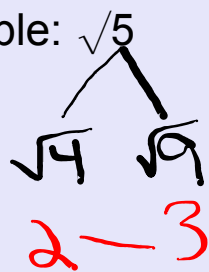
18.  $\sqrt{52}$

19.  $\sqrt{168}$

20.  $\sqrt{499}$

21.  $-\sqrt{217}$

For example:  $\sqrt{5}$



$$\begin{array}{r} 2.2 \\ \times 2.2 \\ \hline 44 \\ 440 \\ \hline 4.84 \end{array}$$

# CRCT Test Prep. Workbook

Number	Page #	Problem #
1	5	2
2	6	6
3	6	7
4	8	15
5	8	19
6	9	22
7	11	36
10	16	55

## Answer Key

<u>Number</u>	<u>Answer</u>
1	D
2	A
3	D
4	B
5	B
6	C
7	C
8	D