

7.4

Practice

For use after Lesson 7.4

Classify the real number.

1. $\sqrt{14}$

Irrational
because it is the square root of a non-perfect square

2. $-\frac{3}{7}$

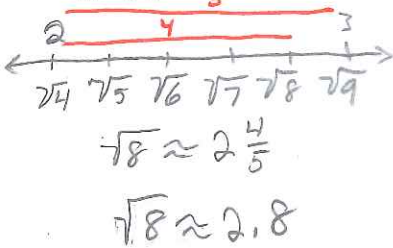
Rational
It is a fraction of integers

3. $\frac{153}{3}$

Rational
It is a fraction of integers

Estimate the square root to the nearest (a) integer and (b) tenth.

4. $\sqrt{8}$



5. $\sqrt{60}$

between $\sqrt{49}$ and $\sqrt{64}$

I needed more space. See next page.

6. $-\sqrt{\frac{172}{25}}$

see other page

Which number is greater? Explain.

7. $\sqrt{88}, 12$

$\sqrt{88}$ is between 9 and 10

$\sqrt{88} < 12$

8. $-\sqrt{18}, -6$

$-\sqrt{18}$ is between -4 and -5

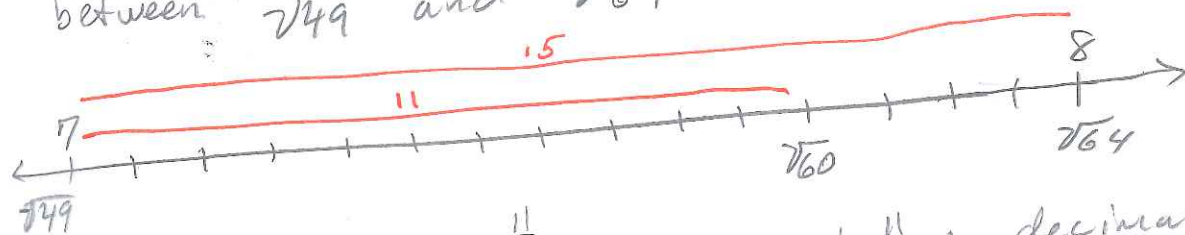
$-\sqrt{18} > -6$

9. $14.5, \sqrt{220}$

10. The velocity in meters per second of a ball that is dropped from a window at a height of 10.5 meters is represented by the equation $v = \sqrt{2(9.8)(10.5)}$. Estimate the velocity of the ball. Round your answer to the nearest tenth.

#5.)

$\sqrt{60}$
between $\sqrt{49}$ and $\sqrt{64}$



$\sqrt{60} \approx 7\frac{11}{15} \rightarrow$ convert $\frac{11}{15}$ to decimal

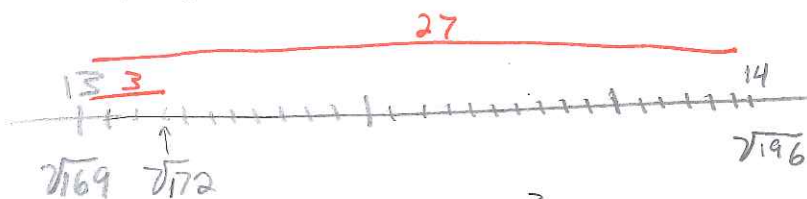
$$\frac{11}{15} = 0.\overline{73}$$

$$\sqrt{60} \approx 7.73$$

#6.)

$$\sqrt{\frac{172}{25}}$$

\pm know $\sqrt{25} = 5$, so let's just worry about the 172



$$\sqrt{172} \approx 13\frac{3}{27}$$

$$\frac{3}{27} = \frac{1}{9} = 0.\overline{1}$$

$$\sqrt{172} \approx 13.111$$