

~~HW: Worksheet~~**Warm up:**

Write the following numbers as fractions.

Reduce if possible.

1) $0.3 = \frac{3}{10}$

5) $0 = \frac{0}{1}$

2) $4.52 = 4\frac{52}{100}$

6) $0.\overline{77} = \frac{7}{9}$

$4\frac{26}{50} = 4\frac{13}{25}$

3) $8 = \frac{8}{1}$

7) $3.1\overline{717} = 3\frac{17}{99}$

4) $-4 = -\frac{4}{1}$

8) $\sqrt{81} = 9 = \frac{9}{1}$

Estimating Square Roots

$$\sqrt{24} \approx 5$$

$$\sqrt[81]{86} \approx 9$$

$$\sqrt[49]{59} \approx 8$$

Two Square Roots

Find the two square roots of 25.

5 and -5

Find the two square roots of 81.

± 9

9 and -9

Estimate to the nearest integer.

$\sqrt{16}$
 1) $\sqrt{18}$ (4) 2) $-\sqrt{33}$ $-\sqrt{36}$ (-6) 3) $\sqrt{68}$ (8)
 4) $\sqrt{97}$ (10) 5) $\sqrt{141}$ $\sqrt{144}$ (12) 6) $-\sqrt{50}$ $-\sqrt{49}$ (-7)

Find the two square roots of each number.

7) 9 8) 64 9) $\frac{9}{49}$
 $3, -3$ $8, -8$ $\frac{3}{7}, -\frac{3}{7}$

HW Solutions

Finding Square Roots Without a Calculator

$$\begin{array}{r}
 1.2 \\
 \times 1.2 \\
 \hline
 24 \\
 120 \\
 \hline
 1.44 \\
 \times 1.4 \\
 \hline
 56 \\
 140 \\
 \hline
 1.96
 \end{array}$$

$$\begin{array}{r}
 1.3 \\
 \times 1.3 \\
 \hline
 39 \\
 130 \\
 \hline
 1.69 \\
 \times 1.41 \\
 \hline
 141 \\
 5640 \\
 14100 \\
 \hline
 1.9881
 \end{array}$$

1.41

$$\sqrt{2}$$

$$\begin{array}{r}
 1.42 \\
 \times 1.42 \\
 \hline
 284 \\
 5680 \\
 14200 \\
 \hline
 2.0164
 \end{array}$$

$$\begin{array}{r}
 1.415 \\
 \times 1.415 \\
 \hline
 7075 \\
 114150 \\
 566000 \\
 1415000 \\
 \hline
 2.002225
 \end{array}$$