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## Warmup $8 /(10 \div 2) \times 4+2$

1. Estimate the value of $\sqrt{71}$. Use 1 decimal place for your estimate.
2. Find the area of the square.

3. Find the perimeter of the square.


## p. 75 (1-4, 10, 16, 18 - 23)

p. 75

1) 4
2) -22
3) undefined
4) $\frac{3}{7}$ and $-\frac{3}{7}$
5) 12
6) 20 ft
7) 36
8) $\frac{25}{81}$
9) 199
10) $x$
11) The square of any square root is the same as the original number.
12) No number times
itself can equal a
negative. But -2 times -2
times -2 is -8 , so $\sqrt[3]{-8}=$
-2 .

## Which of these problems is equivalent to "Find the square root of 25 "???

$\square$ A: If the side length of a square is 25 , find the area.
$\square$ B: If the side length of a square is 25 , find the perimeter.
$\square$ C: If the area of a square is 25 , find the side length.
$\square$ D: If the perimeter of a square is 25 , find the side length.

## Geometry Connection

$\square$ What is the side length of this square???


$$
\text { Side length = } 12 \text { in }
$$

## Geometry Connection

$\square$ What is the area of this square???

## Perimeter $=20$ in



$$
\text { Area }=25 \mathrm{in}^{2}
$$

## QUIZ TOMORROW!!!

$\square$ Converting fractions to decimals using long division
$\square$ Estimating the value of fractions
$\square$ Converting decimals to fractions using place value
$\square$ Converting repeating decimals to fractions
$\square$ Finding exact square roots
$\square$ Estimating square roots
$\square$ WAYS TO STUDY:
$\square$ Look over your notes
Look over your old HW assignments
$\square$ Look at the lessons posted on my website

## Table of Contents

p. 1 Converting Fractions and Decimals (1.1)
p. 2 Roots ( 1.8 \& 1.9)

## BACK TO THIS PAGE!!!

## Making our estimates more exact

$\square$ How can you CHECK an estimate?
$\square$ To check an estimate, multiply it back out to see how close it is!
$\square \sqrt{52}$
$\square 7.3 \cdot 7.3=53.29$ (too high)
$\square 7.2 \cdot 7.2=51.84$ (too low)
$\square 7.2$ was closer, so 7.2 is the best estimate to the nearest tenth.

Find each square root. Your estimate MUST be accurate to the nearest tenth.

1. $\sqrt{22}$
4.7
2. $\sqrt{129}$
11.4

## Challenge

Find the square root. Your answer must be accurate to the nearest hundredth.

$$
\square \sqrt{\mathbf{1 8}}
$$

$$
\begin{aligned}
& 4.2 \cdot 4.2=17.64 \text { (too low) } \\
& 4.3 \cdot 4.3=18.49 \text { (too high) } \\
& 4.25 \cdot 4.25=18.0625 \text { (too high) } \\
& 4.24 \cdot 4.24=17.9776 \text { (too low) } \\
& 17.9776 \text { is closer to } 18 \text { than } 18.0625 .
\end{aligned}
$$

Therefore, 4.24 is the best estimate.

PLEASE FINISH \#6-8 on the Estimation Half Sheet!!!

## PARTNER ACTIVITY:

$\square$ "Least to Greatest" Levels
$\square$ You will all start with Level 1. When you and your partner believe you have put them in the correct order, get them checked by me. If you are correct, you may get the next level.
$\square$ Show all work on your own paper or a whiteboard. If you use a whiteboard, remember to put it back.
$\square$ Your partner is the person sitting across from you. Both of you need to turn your desks so they are next to each other and separated from the other group at your table.

## Levels

$\square$ Level 1: Purple
$\square$ Level 2: Neon Yellow
$\square$ Level 3: Blue
$\square$ Level 4: Neon Green
$\square$ Level 5: Pink
$\square$ Level 6: Orange
$\square$ Level 7: Gold
$\square$ Level 8: Dark Green

## HOMEWORK (Due tomorrow)

$\square$ "Least to greatest" Worksheet

