

Warm-Up

October 31, 2017

No Calculator

Which of the following are perfect squares?

A. $\frac{25}{200}$

1 ✓ yes

8 ← NO

NO

B. $\frac{169}{121}$

← 13x13

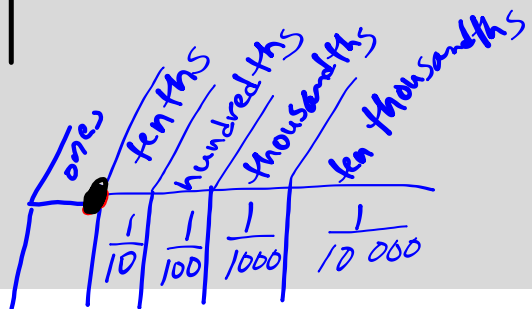
↑ 11x11

yes



Square Root of a Decimal

Decimal	Fraction	Square Root
A. 0.49	$\frac{49}{100}$	$\frac{\sqrt{49}}{\sqrt{100}} = \frac{7}{10}$ 0.7
B. 0.64	$\frac{64}{100}$	$\frac{\sqrt{64}}{\sqrt{100}} = \frac{8}{10}$ $\frac{7}{10}$
C. 1.21	$\frac{121}{100}$	$\frac{\sqrt{121}}{\sqrt{100}} = \frac{11}{10}$
D. 1.44	$\frac{144}{100}$	$\frac{\sqrt{144}}{\sqrt{100}} = \frac{12}{10}$





Which of the following are perfect squares?

A. $\frac{75}{300}$

$\frac{3}{12}$ $\frac{1}{4}$ $\leftarrow 1 \times 1$
 $\sqrt{4} = 2 \times 2$
 yes


B. $\frac{196}{81}$

$\leftarrow 14 \times 14$
 $\sqrt{81} = 9 \times 9$
 yes

Remember to convert to fractions first!

C. 0.25 $\frac{25}{100}$ $\leftarrow 5 \times 5$
 $\sqrt{100} = 10 \times 10$
 yes

D. 1.96 $\frac{196}{100}$ $\leftarrow 14 \times 14$
 $\sqrt{100} = 10 \times 10$
 yes



What are the equal fractions that will give $\frac{1}{9}$?

$$\frac{1}{3} \times \frac{1}{3} = \frac{1}{9}$$
$$\left(\frac{1}{3}\right)^2$$



Which of the following are perfect squares?

If "no" at first...put in lowest terms then decide!

A. $\frac{40}{200}$

NO

$$\frac{4}{20} = \frac{1}{5} \leftarrow 1 \times 1$$

NO

B. $\frac{36}{50}$

NO

$$\frac{18}{25}$$

NO

5x6



Are they perfect squares

C. $\frac{8}{18}$ **yes**
 $4 \leftarrow 2 \times 2$
 $9 \leftarrow 3 \times 3$

D. $\frac{16}{5}$ 4×4
 NO
NO

E. $\frac{2}{9}$ NO
 $9 \leftarrow 3 \times 3$
NO





Is each decimal a perfect square?
 [remember to convert it to a fraction
 in its simplest form]

A. 6.25

$$\frac{625}{100}$$

$\leftarrow 25 \times 25$

$\uparrow 10 \times 10$

yes

B. 0.627

$$\frac{627}{1000}$$

NO



c) $\frac{400}{10000}$ $\leftarrow 20 \times 20$
 $\leftarrow 100 \times 100$
 yes

d) 0.0121
 $\frac{121}{10000}$ $\leftarrow 11 \times 11$
 $\leftarrow 100 \times 100$
 yes

Find the square root of the following:

a) $\sqrt{1789.29}$
 42.3

b) $\sqrt{533.61}$
 23.1

Find the square root. No calculator!

[Use fractions]

a) $\sqrt{0.16}$

$\frac{\sqrt{16}}{\sqrt{100}}$ $\left(\frac{4}{10} \right)$

b) $\sqrt{1.69}$

$\frac{\sqrt{169}}{\sqrt{100}}$ $\frac{13}{10}$



Calculate the number whose square root is...

a) 5

$$\sqrt{?} = 5^{\times 5}$$

$$? = 25$$

b) $\frac{1}{4}$

$$\sqrt{?} = \frac{1}{4} \times \frac{1}{4}$$

$$\sqrt{\frac{1}{16}}$$

c) 0.15

$$\sqrt{?} = \frac{15}{100}$$

$$\frac{225}{10000}$$

copy as fraction!

$\times \frac{100}{100}$



Homework^{5a)} $\sqrt{0.36}$

Page 11-12 $\sqrt{\frac{36}{100}} = \frac{6}{10}$

5 , 7 , 8 , 9

*** Remember convert
decimals
to fractions ***

