Warm-Up

November 3, 2015

No Calculator

Which of the following are perfect squares?

A. $\frac{25}{200} = \frac{1}{8}$ ← 1x1 ← NO

NO

B. $\frac{169}{121}$ ← 13x13 ← 11x11

yes

$3^2 = 9$

$\sqrt{16} = 4$

Square Root of a Decimal

Decimal	Fraction	Square Root
A. 0.49	$\frac{49}{100}$	$\sqrt{\frac{49}{100}} = \frac{7}{10} \times \frac{1}{10} = 0.7$
B. 0.64	$\frac{64}{100}$	$\sqrt{\frac{64}{100}} = \frac{8}{10}$
C. 1.21	$\frac{121}{100}$	$\sqrt{\frac{121}{100}} = \frac{11}{10}$
D. 1.44	$\frac{144}{100}$	$\sqrt{\frac{144}{100}} = \frac{12}{10}$ (12×12 over 10×10)

What are the equal fractions that will give 1/9?

$\sqrt{\frac{1}{9}} = \frac{1}{3}$

$\frac{1}{3} \times \frac{1}{3} = \frac{1}{9}$

Which of the following are perfect squares? [Lowest Terms first]

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

$\frac{4}{20}$ ← yes

$\frac{1}{5}$ ↑ no

NO

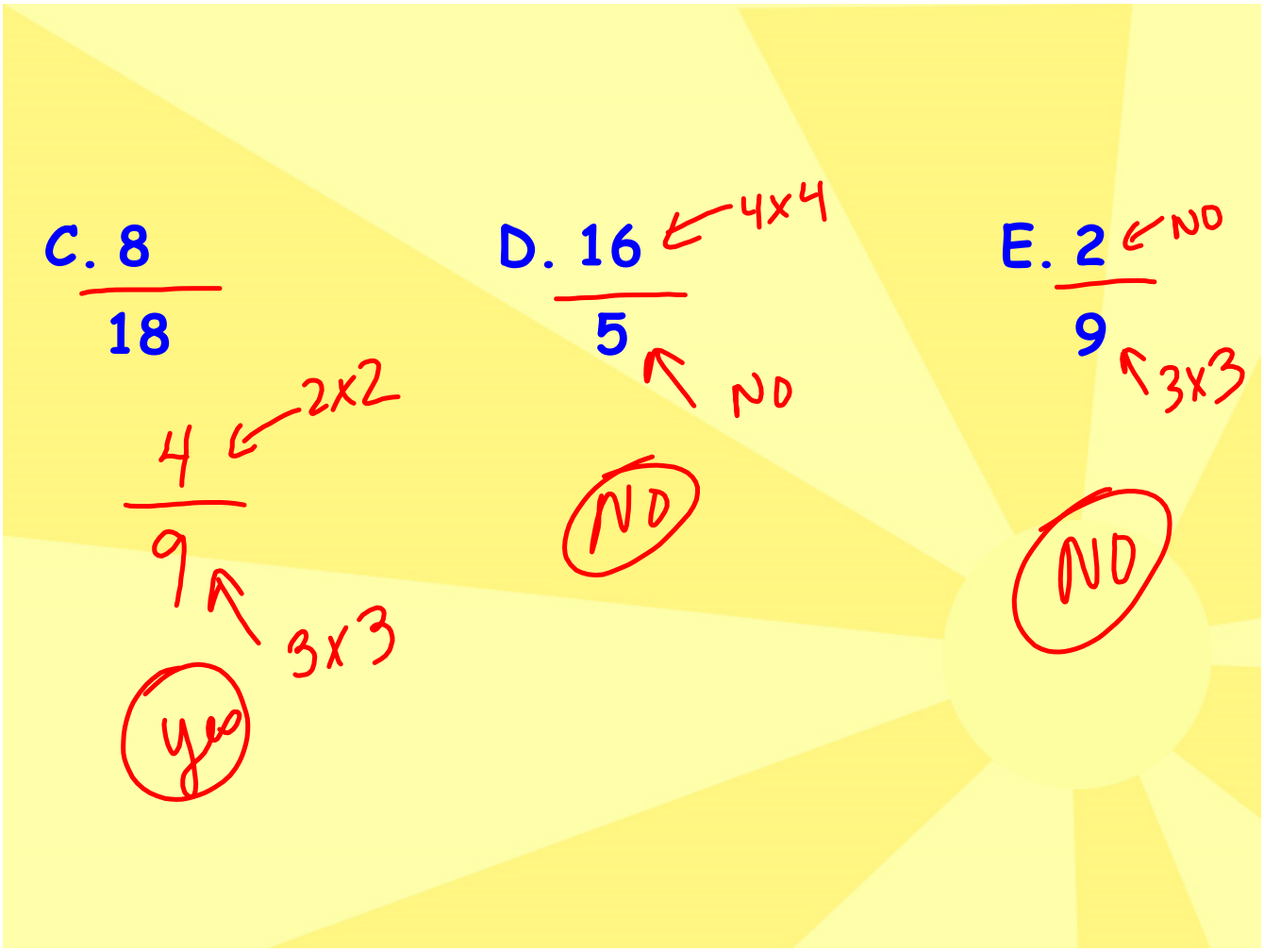
B. $\frac{36}{50}$ ← yes 6x6

↖ NO

$\frac{18}{25}$ ← NO

↑ yes 5x5

NO


C. 8/18
4/9
2x2
3x3
yes
D. 16/5
4x4
NO
NO
E. 2/9
NO
3x3
NO

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

A. 6.25

$\frac{625}{100}$ ← 25x25

10x10 ↑

yes

B. 0.627

$\frac{627}{1000}$ ← NO

↑ NO

c) $\frac{400}{10\,000}$ ← 20x20, ↖ 100x100

yes

d) 0.0121

$\frac{121}{10\,000}$ ← 11x11, ↖ 100x100

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) $\sqrt{0.16}$

$\sqrt{\frac{16}{100}}$ ← 4x4, ← 10x10

$\frac{4}{10}$

$\sqrt{1.69}$

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

Calculate the number whose square root is...

a) 5

$\sqrt{?} = 5$

25

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

$\frac{1}{4} \times \frac{1}{4}$

$\frac{1}{16}$

c) 0.15

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

$\frac{225}{10\,000}$

Homework

Page 11

3, 5 , 7, 8, 9, 11[A], 14

* Remember convert decimals to fractions *