

Mid Unit Review I - KEY

February-08-14 12:07 PM

Name: _____

Date: _____

Math 9 Section 1.1 Assignment

1. Indicate which of the following are perfect square: (Write YES or NO) If it is a perfect square, write it as the square of an integer

a) 81 9^2	b) 225 15^2	c) 71 No	d) 169 13^2
e) 144 12^2	f) 289 17^2	g) 1000 No	h) 0 0^2
i) 25 5^2	J) 125 No	K) 100 10^2	L) 131 No
m) 121 11^2	n) 10,000 100^2	o) 49 7^2	p) 256 16^2

2. Simplify each of the following square roots: (NO Calculators)

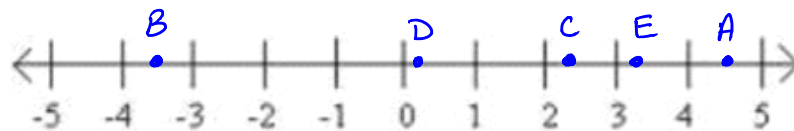
a) $\sqrt{\frac{4}{81}}$ $\frac{2}{9}$	b) $\sqrt{\frac{1}{64}}$ $\frac{1}{8}$	c) $\sqrt{\frac{100}{289}}$ $\frac{10}{17}$	d) $\sqrt{\frac{25}{121}}$ $\frac{5}{11}$
e) $\sqrt{\frac{49}{100}}$ $\frac{7}{10}$	f) $\sqrt{\frac{169}{256}}$ $\frac{13}{16}$	g) $\sqrt{\frac{361}{1000}}$	h) $\sqrt{2.25}$ 1.5
i) $\sqrt{0.64}$ 0.8	J) $\sqrt{0.04}$ 0.2	K) $\sqrt{\frac{128}{242}}$ $\frac{8}{11}$	L) $\sqrt{\frac{12}{243}}$ $\frac{2}{9}$
m) $\sqrt{\frac{50}{98}}$ $\frac{5}{7}$	n) $\sqrt{\frac{841}{49}}$ $\frac{29}{7}$	o) $\sqrt{\frac{147}{300}} = \sqrt{\frac{49}{100}}$ $\frac{7}{10}$	p) $\sqrt{\frac{961}{144}}$ $\frac{31}{12}$
q) $\sqrt{?} = 0.08$ 0.64	r) $\sqrt{?} = 1.2$ 1.44	s) $\sqrt{\frac{?}{100}} = 2.5$ $\sqrt{6.25} = 2.5$ $\Rightarrow ? = 625$	t) $\sqrt{\frac{27}{?}} = \frac{3}{5} = \sqrt{\frac{9}{25}}$ $= \sqrt{\frac{27}{75}}$ $\Rightarrow ? = 75$

3. If the area of a square is $1,156m^2$, what is the length of its side?

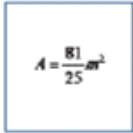
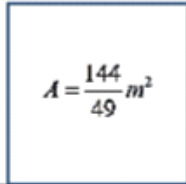
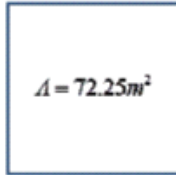
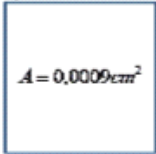
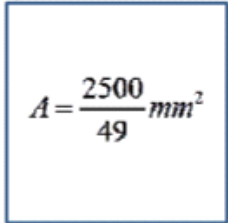
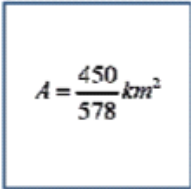
$$\sqrt{1156} = 34m$$

4. Place each of the following square roots on the number line:

A) $\sqrt{20.25}$	B) $-\sqrt{12.96}$	C) $\sqrt{\frac{576}{100}}$	D) $\sqrt{0.09}$	E) $\sqrt{10.24}$
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5. Find the side length of each of the following squares:

a)  $A = \frac{81}{25}m^2$ $\frac{9}{5}m$	b)  $A = \frac{144}{49}m^2$ $\frac{12}{7}m$	c)  $A = 72.25m^2$ $8.5m$
d)  $A = 0.0009cm^2$ $0.03cm$	e)  $A = \frac{2500}{49}mm^2$ $\frac{50}{7}mm$	f)  $A = \frac{450}{578}km^2$ $0.88km$

6. A piece of paper is 10cm by 10cm. How many different squares with side lengths that are integers can you cut out from this piece of paper? (ie: all squares must either 1cmx1cm, 2cmx2cm, or 3cmx3cmetc)

$$\begin{array}{lll}
 1 \times 1 : 100 & 5 \times 5 : 4 & 9 \times 9 : 1 \\
 2 \times 2 : 25 & 6 \times 6 : 1 & 10 \times 10 : 1 \\
 3 \times 3 : 9 & 7 \times 7 : 1 & \\
 4 \times 4 : 4 & 8 \times 8 : 1 &
 \end{array}$$

$Total = 148$