Mid Unit Review II - KEY

February-08-14 12:08 PM

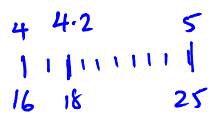
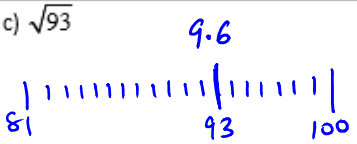
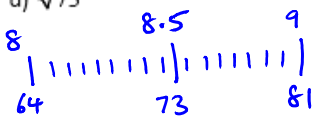
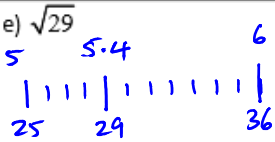
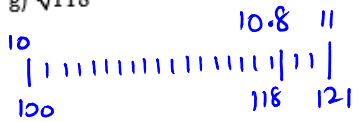
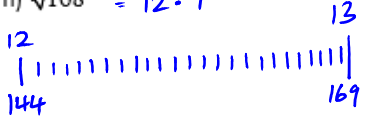
Name:_____ Date:_____

Math 9 Section 1.2 Square Roots of Non Perfect Squares

1. Given each of the following non-perfect squares, find the PS that is closest to it:

a) 23 25	b) 129 121	c) 91 100	d) 115 121
e) 91 100	f) 385 400	g) 75 81	h) 186 196
i) 57 64	j) 228 225	k) 391 361	l) 513 529

2. Estimate the following roots and draw it on a number line:

a) $\sqrt{18}$ 	b) $\sqrt{38}$	c) $\sqrt{93}$ 
d) $\sqrt{73}$ 	e) $\sqrt{29}$ 	f) $\sqrt{58}$
g) $\sqrt{118}$ 	h) $\sqrt{168} \doteq 12.9$ 	i) $\sqrt{288} \doteq 16.9$

3. Approximate each of the following square roots:

a) $\sqrt{\frac{17}{26}} \doteq \sqrt{\frac{16}{25}}$ $\frac{4}{5}$	b) $\sqrt{\frac{10}{37}} \doteq \sqrt{\frac{9}{36}}$ $\frac{3}{6} = \frac{1}{2}$	c) $\sqrt{\frac{99}{65}} \doteq \sqrt{\frac{100}{64}}$ $\frac{10}{8} = \frac{5}{4}$

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d) $\sqrt{\frac{120}{79}} \doteq \sqrt{\frac{121}{81}}$ $\frac{11}{9}$	e) $\sqrt{\frac{195}{167}} \doteq \sqrt{\frac{196}{169}}$ $\frac{14}{13}$	f) $\sqrt{\frac{101}{290}} \doteq \sqrt{\frac{100}{289}}$ $\frac{10}{17}$

4. Use any strategy to estimate the value of each square root. Try to find a common factor to estimate the roots.

a) $\sqrt{\frac{17}{1000}} = \sqrt{0.017}$ $\sqrt{0.01}$ $\sqrt{0.04}$ 0.13	b) $\sqrt{\frac{18}{60}} = \sqrt{0.30}$ 0.5 0.55 0.6 0.25 0.36 0.55	c) $\sqrt{\frac{27}{40}} \doteq \sqrt{0.68}$ 0.8 0.82 0.9 0.64 0.81 0.82
d) $\sqrt{\frac{10}{45}} \doteq \sqrt{0.22}$ 0.4 0.47 0.5 0.16 0.25 0.47	e) $\sqrt{\frac{21}{65}} \doteq \sqrt{0.32}$ 0.5 0.57 0.6 0.25 0.36 0.57	f) $\sqrt{\frac{529}{100}} \doteq \sqrt{0.53}$ 0.7 0.73 0.8 0.49 0.64 0.73
g) $\sqrt{0.000080}$ $\doteq \sqrt{0.000081}$ $= 0.009$	h) $\sqrt{0.0119}$ $\doteq \sqrt{0.01}$ $= 0.1$	i) $\sqrt{0.0257}$ $\doteq \sqrt{0.0256}$ $= 0.16$
j) $\sqrt{2.90}$ $\doteq \sqrt{2.89}$ $= 1.7$	k) $\sqrt{0.0145}$ $\doteq \sqrt{0.0144}$ $= 0.12$	L) $\sqrt{0.000626}$ $\doteq \sqrt{0.000625}$ $= 0.025$

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