Comparing Real Numbers Worksheet Answer Key

Usurper!

Fill in the blanks with <, >, or =.

1.
$$\frac{2}{3} < \frac{7}{8}$$

$$\frac{2}{3} = \frac{16}{24} < \frac{21}{24} = \frac{7}{8}$$

2.
$$45 > 8\frac{1}{12}$$

 $8\frac{1}{12} = 8 + \frac{1}{12} < 45$

3.
$$\frac{17}{5} = 3\frac{2}{5}$$

 $3\frac{2}{5} = 3 + \frac{2}{5} = \frac{17}{5}$

4.
$$-\frac{4}{3} > -2$$

 $-\frac{4}{3} = -1.33 > -2$

5.
$$\frac{2}{\sqrt{2}} = \sqrt{2}$$

$$\frac{2}{\sqrt{2}} = \frac{2\sqrt{2}}{\sqrt{2}\sqrt{2}} = \frac{2\sqrt{2}}{2} = \sqrt{2}$$

6.
$$3\frac{1}{4} > 2\frac{3}{4}$$

 $3\frac{1}{4} = 3 + \frac{1}{4} = \frac{13}{4}$ and $2\frac{3}{4} = 2 + \frac{3}{4} = \frac{11}{4}$

7.
$$0.25 > \frac{3}{15}$$

 $\frac{3}{15} = \frac{1}{5} = 0.2 < 0.25$

8.
$$-2\frac{1}{3} < -1$$

 $-2\frac{1}{3} = -\frac{7}{3} = -2.33 < -1$

9.
$$\frac{19.8}{2} < 10$$

 $\frac{19.8}{2} = 9.9 < 10$

10. $x > x^2$ where x is a real number and 0 < x < 1.

Since 0 < x < 1, x is a proper fraction. Also, $\frac{x^2}{x} = x < 1$, implies $x^2 < x$.

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