Lesson 2.5 Comparing Rational and Irrational Numbers

Compare rational and irrational numbers by using a best guess for irrational numbers.

$\sqrt{3} < 2$ This statement is true because $\sqrt{3}$ is between 1 and 2.

$5 > \sqrt{20}$ This statement is true because $\sqrt{20}$ is between 4 and 5.

Compare using <, >, or =.

a	**b**	**c**
1. $\sqrt{9}$ _____ π	4.5 _____ $\sqrt{25}$	3.9 _____ $\sqrt{10}$
2. $\sqrt{2}$ _____ 1	$\sqrt[3]{\frac{8}{27}}$ _____ $\frac{2}{3}$	1.1 _____ $\sqrt{2}$
3. $0.\overline{66}$ _____ $\frac{2}{3}$	$\sqrt{8}$ _____ 3	1 _____ $\sqrt{\frac{16}{25}}$
4. $\sqrt{36}$ _____ 6.5	1 _____ $0.\overline{45}$	$\frac{3}{5}$ _____ $\sqrt{\frac{9}{5}}$
5. $\sqrt[3]{343}$ _____ 7.2	$0.\overline{77}$ _____ $\frac{7}{9}$	7 _____ $\sqrt{52}$
6. $\sqrt{5}$ _____ 4	$\frac{3}{4}$ _____ $0.\overline{75}$	$\sqrt[3]{32}$ _____ 3.5
7. $\frac{5}{10}$ _____ $\sqrt{1}$	$\sqrt[3]{6}$ _____ 2	1.4 _____ $\sqrt{2}$
8. $\sqrt[3]{\frac{27}{125}}$ _____ 0.6	$\frac{1}{2}$ _____ 0.55	$\sqrt[3]{18}$ _____ 2.5