Algebra Readiness SBAC Practice 3 Name _____ Date _____ Period ___

Part A: Rational & Irrational Numbers

1. For each number, **state** if the number is rational or irrational. **Justify** your reasoning.

	Rational or Irrational	Justification
$.\overline{7}$		
$\frac{3}{4}$		
7		
$\frac{\sqrt{3}}{3}$		
2π		

2. For each statement, **state** if it is true or false. **Justify** your reasoning.

	True or False	Justification
$\sqrt{10} < 5$		
$\sqrt{8} > 3.2$		
$3 < \sqrt{12} < 4$		
$\frac{\sqrt{10}}{2} = \sqrt{5}$		
$5 - \sqrt{5} < \frac{\sqrt{5}}{2}$		

Part B: Square & Cube Roots [8.EE.2]

3. For each, **approximate** to the nearest tenth, **providing** a range of values as shown in the example.

Example: $\sqrt{80}$ $8^2 = 64$ $8.8^2 = 77.44$ $\quad \sqrt{80} \approx 8.9$ $8.9^2 = 79.21$ $\quad 8.8 < \sqrt{80} < 9$ $9^2 = 81$	A) $\sqrt{60}$
B) $\sqrt{16+15}$	C) $\sqrt{1-8+15}$
D) $2\sqrt{7}$	E) $\sqrt[3]{21}$

Part C: Pythagorean Theorem [8.G.7]

4. **Solve** for the missing side of the right triangle, **approximating** your answer to the nearest tenth. **Show** your work and **justify** your reasoning.