Practice worksheet | Proof and circle geometry

Rational/irrational numbers and simple number proofs

Name: _____ Date: _____

6 questions | 17 marks

1. Prove that the sum of two rational numbers is rational. [2 marks]

2. Prove that a non-zero rational multiple of an irrational number is irrational. [3 marks]

3. Show that $0.\overline{27}$ is rational. [3 marks]

4. Give irrational numbers whose sum is rational, and another pair whose sum is irrational. [2 marks]

5. Prove that $\sqrt{5}$ is irrational. [4 marks]

6. Is the reciprocal of a non-zero irrational number irrational? Prove your answer. [3 marks]