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Resource ID#: 42244

Primary Type: Problem-Solving Task

Comparing Rational and Irrational Numbers

Students are given a pair of numbers. They are asked to determine which is larger, and then justify their answer. The numbers involved are rational numbers and common irrational numbers, such as n and square roots. This task can be used to either build or assess initial understandings related to rational approximations of irrational numbers.

Comparing Rational and Irrational Numbers, revised (Microsoft Word): This file includes the task and related information in Microsoft Word format.

Comparing Rational and Irrational Numbers, revised (PDF): This file includes the task and related information in PDF format.

General Information

Subject(s): Mathematics

Grade Level(s): 8

Intended Audience: [Educators](#), [Students](#), [Parents](#)

Instructional Time: 15 Minute(s)

Freely Available: Yes

Keywords: Comparing Rational and Irrational Numbers, Comparing, Rational, Irrational, cpalms, icpalms, illustrativemathematics.org, illustrative mathematics, tasks, mathematics, math, Florida standards, resource, free, freely available, problems-based learning, student activities

Instructional Component Type(s): [Problem-Solving Task](#)

Resource Collection: Illustrative Mathematics

Source and Access Information

Contributed by: Brian Carmichael

Name of Author/Source: Brian Carmichael

District/Organization of Contributor(s):

Is this Resource freely Available? Yes

Access Privileges: Public

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Aligned Standards

Name	Description
MAFS.8.NS.1.2:	Use rational approximations of irrational numbers to compare the size of irrational numbers, locate them approximately on a number line diagram, and estimate the value of expressions (e.g., n^2). For example, by truncating the decimal expansion of $\sqrt{2}$, show that $\sqrt{2}$ is between 1 and 2, then between 1.4 and 1.5, and explain how to continue on to get better approximations.