

Rational or Irrational?

Use with Math with Someone

Concept	Classify a number as either rational or irrational.
Materials Needed	<p>Each student will need the following:</p> <ul style="list-style-type: none"> • Pencil • Rational or Irrational? recording sheet • Deck of Rational or Irrational? cards
Directions	<p>Students could do this activity independently or in partners.</p> <p>The goal of this activity is for students to recognize the difference between rational and irrational numbers.</p> <ol style="list-style-type: none"> 1. This game is played in rounds, with five problems per round. Player 1 turns over a card, and both player 1 and player 2 record it on their recording sheet. 2. Player 1 and Player 2 independently decide if the number is rational or irrational and justify their response in the appropriate section on the recording sheet. 3. After both students have recorded their responses, Player 1 shares his or her answer with Player 2. If they both agree, they move on to the next problem in the round. If the players disagree, they must explain their thinking to each other and together, determine which player has the correct answer. 4. Each player gets 10 points for every correct answer. At the end of each round, students total their points. The player with the most points wins that round.
Differentiate	<p>To differentiate for students who are struggling:</p> <ul style="list-style-type: none"> • Partner 1 selects a card and coaches partner 2, explaining why the number is rational or irrational. Partner 2 writes what partner 1 says, and then the partners switch roles. • Students use a graphic organizer with notes to support them in determining whether a number is rational or irrational. <p>To differentiate for students who are more advanced:</p> <ul style="list-style-type: none"> • Have students identify whether a number is real, whole, natural, or an integer in addition to identifying whether it is rational or irrational. • Have students plot rational numbers on a number line and approximate where on a number line an irrational number would be. • Have students create additional numbers, both rational and irrational, to add to the deck of cards.