

7th Grade

Ratios and Proportional Relationships

Purchasing Tickets to a Game

Objective:

By the end of the activity, the students will be able to:

- Analyze a real world scenario with constant proportionality.
- Show proportional relationship through multiple representations.

Teacher Preparation:

- Have the students in small groups (2-4 members).
- Provide copies of the "Purchasing Tickets to a Game" activity sheet.

Activity:

- Introduce the scenario to the students.
- Then, pass out the activity sheet. Allow sufficient time for the students to work through the scenario.
- You will walk around to facilitate student interaction. Ask probing questions, and encourage the students to display more than one method to obtain an answer.

South Carolina College- and Career-Ready Standards for Mathematics:

7.RP.2 Identify and model proportional relationships given multiple representations, including tables, graphs, equations, diagrams, verbal descriptions, and real-world situations.

Extensions:

- Refer back to this activity as a bridge for proportions, constant proportionality, writing equations, and unit rates.
- Allow the students to create their own scenario and table that represents constant proportionality.
- Give the students a labeled graph or allow them to make and label their own.





Purchasing Tickets to the Game

A basketball game is coming up soon! The table shows the price when multiple tickets are purchased.

Cost (in dollars)	21			42	49		63	
# of Tickets	3	4	5	6	7	8	9	11

1.	What	patterns	do	you	see	in	the	table	e a	bove	9
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- a. Use the pattern from the information given to find out how much it costs for 4, 5, 8, and 11 tickets. Fill-in your table with your answers.
- b. This table can also be arranged vertically in the form of a list of values called a **T-Table** or **T-Chart**. Complete the T-Chart with the values that represent the relationship between the tickets and their cost.

# of	Cost
Tickets	(in \$)
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	b.	Draw a line through the points. How does your line compare to how you filled i your table?
3.	What i	s the cost per ticket? Explain your reasoning.
4.	What	will the price be for game if you needed 13 tickets? Justify your answer.
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	What i	will the price be for game if you needed 13 tickets? Justify your answer. s the maximum number of tickets you could purchase if you only had \$115? n your reasoning.