Inspect
CCR Performance Tasks

Math Grade 7: Extended Performance Task
Planning a Party

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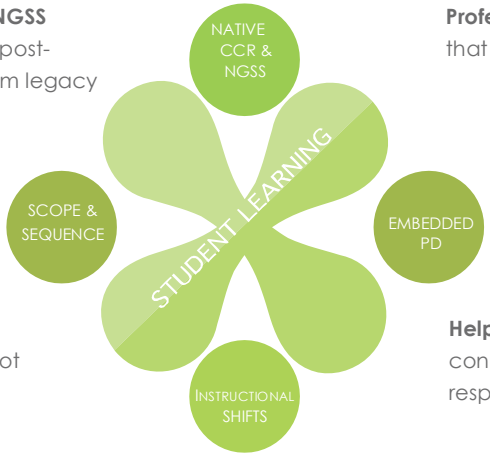

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CCR Performance Tasks

Math Grade 7: Extended Performance Task
Planning a Party

Student Test Booklet

Name:

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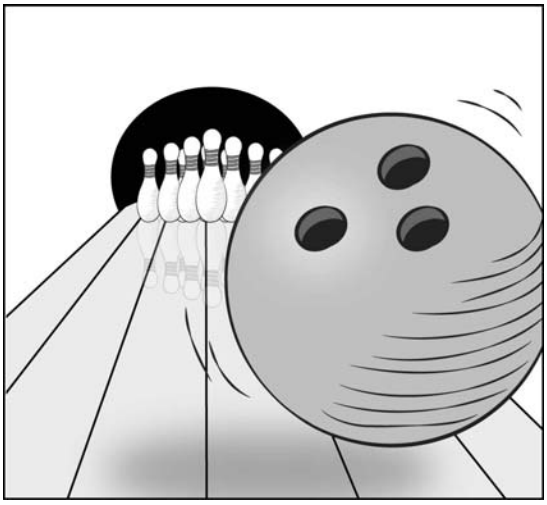
Math Grade 7: Extended Performance Task: Planning a Party

Complete all the tasks in the test booklet.

The Hillside Middle School track team would like to plan an end of the year party at Good Times Entertainment. Good Times is a place that offers food and activities such as laser tag, bowling, and arcade games.

Good Times offers a party package available for birthday parties or other group celebrations. This package includes:

- a game of laser tag for $8
- a game of bowling at half the price of laser tag
    - bowling shoes are not included in the cost for bowling but are available for rental for an additional $2.99
- 25 tokens for $6 to play in the arcade
- a choice of either 2 slices of pizza or a hot dog and nachos for $7
    - each food choice comes with a drink and one free refill



This year's track team includes 25 students. However, only 21 students have signed up to attend the party, five of whom said they could bring their own bowling shoes. The head coach, Coach Kizere, her assistant, Coach Harris, and 6 volunteer parents will be at the party as chaperones. Because Good Times knows you can't have a party for kids without some adult supervision, they offer one adult to participate free of charge for every 5 paid students.

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Part A: Bowling Party

Coach Kizere wants to get an idea of how much the party is going to cost. She created a table to help her get organized.

1. Complete the table with the individual costs for each person that will be attending the party.

Person	Cost for bowling	Cost for laser tag	Cost for 25 tokens	Cost for food	Cost for shoe rental
Student 1					
Student 2					
Student 3					
Student 4					
Student 5					
Student 6					
Student 7					
Student 8					
Student 9					
Student 10					
Student 11					
Student 12					
Student 13					
Student 14					
Student 15					
Student 16					
Student 17					
Student 18					
Student 19					
Student 20					
Student 21					
Adult 1					
Adult 2					
Adult 3					
Adult 4					
Adult 5					
Adult 6					
Adult 7					
Adult 8					

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2. What is the total amount of money needed for everyone to attend? Explain how you found your answer.

3. Coach Kizere received an email from Good Times saying that she can receive a 15% discount on the party if she pays the full amount in advance. What will be the new cost of the party if Coach Kizere decides to take advantage of the discount? Explain how you calculated the cost of the party with the discount.

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Support Worksheet for Part A: Question 1

How much will it cost for each student to attend? Wait until the end to add up each column. Add up the total for each column and write that total in the bottom row. You will then have your total cost for each activity once you've completed the table.

Student	Bowling	Laser Tag	25 tokens	Food	Shoe rental
Student 1					
Student 2					
Student 3					
Student 4					
Student 5					
Student 6					
Student 7					
Student 8					
Student 9					
Student 10					
Student 11					
Student 12					
Student 13					
Student 14					
Student 15					
Student 16					
Student 17					
Student 18					
Student 19					
Student 20					
Student 21					
Total					

How much will it cost for the chaperones to attend? Include the paying chaperones first in the table. Add up the total for each column and write that total in the bottom row.

Chaperone	Bowling	Laser Tag	25 tokens	Food	Shoe rental
Adult 1					
Adult 2					
Adult 3					
Adult 4					
Adult 5					
Adult 6					
Adult 7					
Adult 8					
Total					

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Support Worksheet for Part A: Question 2

The table you created at the beginning of this task was useful to show the cost of various activities at Good Times but it may have taken some time to create. By creating an expression or an equation using the information given, you can save time when calculating the cost for those in attendance.

For each question write an expression or equation you can use to solve the problem. Then answer the question.

How much will it cost for a student to attend the end of the year track party at Good Times (assuming with a shoe rental)? How much will it cost for one player to attend if they bring their own bowling shoes? Show your work.

How much will it cost for 7 students that need to rent bowling shoes? Show your work.

Write an expression that can be written to figure out how much it would cost for *n* students that will be renting bowling shoes to attend. How much will it cost if the number of students that will be attending the party is substituted in for *n*? Show your work.

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Is this the correct amount for the total cost for the students? Why or why not?

How many adults will be able to participate at no cost? Show your work.

What is the total cost for all of the adult chaperones? Show your work.

What is the total amount for everyone who is signed up to attend? Show your work.

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Support Worksheet for Part A: Question 3

Create an equation showing the cost for the students and their adult chaperones using the 15% discount available through the email coupon.

Solve the equation to find the new cost of the party if Coach Kizere decides to use the discount.

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Part B: Other Options

Coach Kizere is worried about the cost of the party. She would like to find another option that may be less expensive. Coach Harris plans to find at least one other place they could have their party. Help him by researching local places (within 100 miles) around you that would be a good place to have a party for the track team. The following types of places would be appropriate:

- Mini golf with go carts and an arcade
- Waterpark with swimming and slides
- Local YMCA with indoor gym, rock climbing wall, swimming pool

Once you find another location, decide on at least 3 activities that the students will enjoy. The activities should keep the students entertained for at least 3 hours and no more than 5 hours. Then pick out what they will eat while they are there. The total cost including food should be calculated.

4. What is the other party place you found? Why did you choose this place? What website did you use to find information about this party place?

The details given in Part A should be the same that you use to answer the questions below (same number of students and chaperones).

What are the specifics of the activities for the students? List all of the events and food that will be included at this new location. Also give details on any discounts that are available.

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5. Complete the table with the costs for each person that will be attending the party.

People Attending	Activity 1	Activity 2	Activity 3	Activity 4	Food
Student 1					
Student 2					
Student 3					
Student 4					
Student 5					
Student 6					
Student 7					
Student 8					
Student 9					
Student 10					
Student 11					
Student 12					
Student 13					
Student 14					
Student 15					
Student 16					
Student 17					
Student 18					
Student 19					
Student 20					
Student 21					
Adult 1					
Adult 2					
Adult 3					
Adult 4					
Adult 5					
Adult 6					
Adult 7					
Adult 8					

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6. What is the total amount of money needed for everyone to attend? Explain how you found your answer.

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Support Worksheet for Part B: Question 5

How much will it cost for each student to attend? Wait until the end to add up each column. Add up the total for each column and write that total in the bottom row. You will then have your total cost for each activity once you've completed the table.

Student	Activity 1	Activity 2	Activity 3	Activity 4	Food
Student 1					
Student 2					
Student 3					
Student 4					
Student 5					
Student 6					
Student 7					
Student 8					
Student 9					
Student 10					
Student 11					
Student 12					
Student 13					
Student 14					
Student 15					
Student 16					
Student 17					
Student 18					
Student 19					
Student 20					
Student 21					
Total					

How much will it cost for the chaperones to attend? Include the paying chaperones first in the table. Add up the total for each column and write that total in the bottom row.

Chaperone	Activity 1	Activity 2	Activity 3	Activity 4	Food
Adult 1					
Adult 2					
Adult 3					
Adult 4					
Adult 5					
Adult 6					
Adult 7					
Adult 8					
Total					

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Support Worksheet for Part B: Question 6

For each question write an expression or equation you can use to solve the problem. Then answer the question.

How much will it cost for a student to attend the end of the year track party at the optional place? Are there any discounts? Show your work.

Write an expression that can be written to figure out how much it would cost for *n* students to attend the party at the optional place. How much will it cost if the number of students that will be attending the party is substituted in for *n*? Show your work.

Is this the correct amount for the total cost for the students? Why or why not?

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What is the total cost for all of the adult chaperones? Are there any discounts for adults? Show your work.

What is the total amount for everyone who is signed up to attend? Show your work.

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Part B (optional): Group Activity

You should be paired with another student in your class to complete this portion of the task.

Coach Kizere found out that the Booster Club will not pay more than $500 for the end of the year track celebration. Help determine what needs to change, if anything, so that the Booster Club will pay for all of the expenses. You can use the party described at Good Times or at your optional party place. The number of students can't change.

Using the information in the previous questions, describe in detail at least 3 changes that can be made in order to make sure the total amount for the party is under $500. Make sure to include specifics of why and how you will make the changes. You and your partner will need to work together as a team to decide the appropriate changes. Write the new plan in the response box below.

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Part C: Plan the Party

Now that you have decided how much money you will need for everyone to attend the party, you are ready for the next step.

7. Outline a plan that details the important information you gathered with regard to your party. The questions below should help you write a final proposal to the Booster Club in Part D.

Proposal title: _____

By: _____

Describe the facility where the track team would like to have their end of the year party. What types of activities are available at the selected facility? Is there food available? What is the cost for the activities and any available food?

How many students are planning to attend the party? What is the total cost for the students that wish to attend the party?

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Name:_____

Math Grade 7: Extended Performance Task: Planning a Party

Will there be chaperones to supervise this event? If so, how many adults are planning to attend? Does the facility offer a special rate to adult chaperones? What is the total cost for all adults to attend?

A coupon is available for a discount on the price of the party. Explain the details of this coupon and how it would affect the cost of the party.

Why do you think the Booster Club should give money in support of this event?

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Part D: Writing Component

Coach Kizere would like to ask the Booster Club to fund this end of the year party. To do so she will need to write a proposal outlining the details of the party.

8. In this section, you will write a proposal for Coach Kizere to take to the Booster Club. For this proposal you will need to use all of the information that you gathered in the previous sections. Your proposal should include the following detailed information: 1) a description of the facility where you would like to have the party, 2) an explanation of the activities and food that are available and the cost of each, 3) the number of students who have signed up to attend the party and the total cost for these students, 4) an explanation of who will chaperone the students and how these adults will be paid for, 5) the available discount and how this would affect the cost of the party, 6) an explanation of why you feel the Booster Club should give money in support of this event.

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CCR Performance Tasks

Math Grade 7: Extended Performance Task
Planning a Party

Teacher Guide

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Task Specifications

Content Area	Mathematics
Title	Planning a Party
Grade Level	Grade 7
Problem Type	Extended Performance Task
Standards for Mathematical Practices	**Mathematical Practice 1 (MP.1):** Make sense of problems and persevere in solving them. Mathematically proficient students: • Explain to themselves the meaning of a problem and look for entry points to its solution. • Analyze givens, constraints, relationships, and goals. • Make conjectures about the form and meaning of the solution and plan a solution pathway rather than simply jumping into a solution attempt. • Consider analogous problems, and try special cases and simpler forms of the original problem in order to gain insight into its solution. • Monitor and evaluate their progress and change course if necessary. • Explain correspondences between equations, verbal descriptions, tables, and graphs or draw diagrams of important features and relationships, graph data, and search for regularity or trends. • Check their answers to problems using a different method, and continually ask themselves, “Does this make sense?” • Understand the approaches of others to solving complex problems and identify correspondences between different approaches. **Mathematical Practice 4 (MP.4):** Model with mathematics. Mathematically proficient students: • Apply the mathematics they know to solve problems arising in everyday life, society, and the workplace. • Apply what they know and are comfortable making assumptions and approximations to simplify a complicated situation, realizing that these may need revision later. • Identify important quantities in a practical situation and map their relationships using such tools as diagrams, two-way tables, graphs, flowcharts and formulas. • Analyze relationships mathematically to draw conclusions. • Interpret their mathematical results in the context of the situation and reflect on whether the results make sense, possibly improving the model if it has not served its purpose. **Mathematical Practice 6 (MP.6):** Attend to precision. Mathematically proficient students: • Communicate precisely to others. • Use clear definitions in discussion with others and in their own reasoning. • State the meaning of symbols they choose, including using the equal sign consistently and appropriately. • Are careful about specifying units of measure, and labeling axes to clarify the correspondence with quantities in a problem. • Calculate accurately and efficiently, and express numerical answers with a degree of precision appropriate for the problem context.

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Common Core State Standards	**7.EE.1** Apply properties of operations as strategies to add, subtract, factor, and expand linear expressions with rational coefficients. **7.EE.2** Understand that rewriting an expression in different forms in a problem context can shed light on the problem and how the quantities in it are related. **7.EE.3** Solve multi-step real-life and mathematical problems posed with positive and negative rational numbers in any form (whole numbers, fractions, and decimals), using tools strategically. Apply properties of operations to calculate with numbers in any form; convert between forms as appropriate; and assess the reasonableness of answers using mental computation and estimation strategies. **7.EE.4a** Solve word problems leading to equations of the form ***px + q = r*** and ***p(x + q) = r***, where ***p***, ***q***, and ***r*** are specific rational numbers. Solve equations of these forms fluently. Compare an algebraic solution to an arithmetic solution, identifying the sequence of the operations used in each approach. **7.EE.4b** Solve word problems leading to inequalities of the form ***px = q > r*** or ***px + q <r***, where ***p***, ***q***, and ***r*** are specific rational numbers. Graph the solution set of the inequality and interpret it in the context of the problem.
CCSS Literacy in Writing- Grade 6-8	**WHST.6-8.5** With some guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on how well purpose and audience have been addressed. **WHST.6-8.2** Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.
SBAC Assessment Claims	**Claim 4: Modeling and Data Analysis**—Students can analyze complex, real-world scenarios and can construct and use mathematical models to interpret and solve problems.
PARCC Assessment Claims	**Sub-Claim D: Highlighted Practice MP.4 with Connections to Content (modeling/application)** —The student solves real-world problems with a degree of difficulty appropriate to the grade/course by applying knowledge and skills articulated in the standards for the current grade/course (or for more complex problems, knowledge and skills articulated in the standards for previous grades/courses), engaging particularly in the Modeling practice.
Depth of Knowledge	**Level 4: Extended Strategic Thinking**—Curricular elements assigned to the level demand extended use of higher order thinking processes such as synthesis, reflection, assessment and adjustment of plans over time. Students are engaged in conducting investigations to solve real-world problems with unpredictable outcomes. Employing and sustaining strategic thinking processes over a longer period of time to solve the problem is a key feature of curricular objectives that are assigned to this level. Key strategic thinking processes that denote this particular level include: synthesize, reflect, conduct, and manage.
Task Overview	In this task you will be asked to analyze information provided to determine the best course of action. You will then be asked to consider additional information and decide how to incorporate this new information into your plan. Once you have an understanding of the problem you can make a detailed plan to help achieve the goal.

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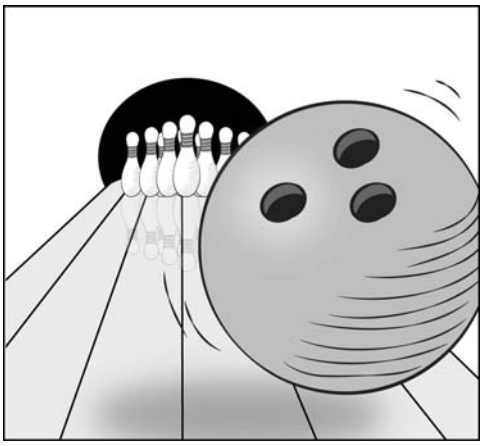
Student Task

The Hillside Middle School track team would like to plan an end of the year party at Good Times Entertainment. Good Times is a place that offers food and activities such as laser tag, bowling, and arcade games.

Good Times offers a party package available for birthday parties or other group celebrations. This package includes:

- a game of laser tag for $8
- a game of bowling at half the price of laser tag
    - bowling shoes are not included in the cost for bowling but are available for rental for an additional $2.99
- 25 tokens for $6 to play in the arcade
- a choice of either 2 slices of pizza or a hot dog and nachos for $7
    - each food choice comes with a drink and one free refill



This year's track team includes 25 students. However, only 21 students have signed up to attend the party, five of whom said they could bring their own bowling shoes. The head coach, Coach Kizere, her assistant, Coach Harris, and 6 volunteer parents will be at the party as chaperones. Because Good Times knows you can't have a party for kids without some adult supervision, they offer one adult to participate free of charge for every 5 paid students.

Part A: Bowling Party

Coach Kizere wants to get an idea of how much the party is going to cost. She created a table to help her get organized.

1. Complete the table with the individual costs for each person that will be attending the party.

2. What is the total amount of money needed for everyone to attend? Explain how you found your answer.

3. Coach Kizere received an email from Good Times saying that she can receive a 15% discount on the party if she pays the full amount in advance. What will be the new cost of the party if Coach Kizere decides to take advantage of the discount? Explain how you calculated the cost of the party with the discount.

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Part B: Other Options

Coach Kizere is worried about the cost of the party. She would like to find another option that may be less expensive. Coach Harris plans to find at least one other place they could have their party. Help him by researching local places (within 100 miles) around you that would be a good place to have a party for the track team. The following types of places would be appropriate:

- Mini golf with go carts and an arcade
- Waterpark with swimming and slides
- Local YMCA with indoor gym, rock climbing wall, swimming pool

Once you find another location, decide on at least 3 activities that the students will enjoy. The activities should keep the students entertained for at least 3 hours and no more than 5 hours. Then pick out what they will eat while they are there. The total cost including food should be calculated.

4. What is the other party place you found? Why did you choose this place? What website did you use to find information about this party place?

The details given in Part A should be the same that you use to answer the questions below (same number of students and chaperones).

What are the specifics of the activities for the students? List all of the events and food that will be included at this new location. Also give details on any discounts that are available.

5. Complete the table with a list for each person that will be attending the party and the amount that each will be charged.

6. What is the total amount of money needed for everyone to attend? Explain how you found your answer.

Part B (optional): Group Activity

You should be paired with another student in your class to complete this portion of the task.

Coach Kizere found out that the Booster Club will not pay more than $500 for the end of the year track celebration. Help determine what needs to change, if anything, so that the Booster Club will pay for all of the expenses. You can use the party described at Good Times or at your optional party place. The number of students can't change.

Using the information in the previous questions, describe in detail at least 3 changes that can be made in order to make sure the total amount for the party is under $500. Make sure to include specifics of why and how you will make the changes. You and your partner will need to work together as a team to decide the appropriate changes. Write the new plan in the response box below.

Part C: Plan the Party

Now that you have decided how much money you will need for everyone to attend the party, you are ready for the next step.

7. Outline a plan that details the important information you gathered with regard to your party. The questions below should help you write a final proposal to the Booster Club in Part D.

Describe the facility where the track team would like to have their end of the year party. What types of activities are available at the selected facility? Is there food available? What is the cost for the activities and any available food?

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How many students are planning to attend the party? What is the total cost for the students that wish to attend the party?

Will there be chaperones to supervise this event? If so, how many adults are planning to attend? Does the facility offer a special rate to adult chaperones? What is the total cost for all adults to attend?

A coupon is available for a discount on the price of the party. Explain the details of this coupon and how it would affect the cost of the party.

Why do you think the Booster Club should give money in support of this event?

Part D: Writing Component

Coach Kizere would like to ask the Booster Club to fund this end of the year party. To do so she will need to write a proposal outlining the details of the party.

8. In this section, you will write a proposal for Coach Kizere to take to the Booster Club. For this proposal you will need to use all of the information that you gathered in the previous sections. Your proposal should include the following detailed information: 1) a description of the facility where you would like to have the party, 2) an explanation of the activities and food that are available and the cost of each, 3) the number of students who have signed up to attend the party and the total cost for these students, 4) an explanation of who will chaperone the students and how these adults will be paid, 5) the available discount and how this would affect the cost of the party, 6) an explanation of why you feel the Booster Club should give money in support of this event.

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Teacher Instructions

This performance task is designed to assess student understanding of a variety of content and mathematical practice standards. Students are challenged to solve a real-world problem involving mathematical operations and rates. They obtain information about various activities within a facility and develop a written plan based on their calculations. The plan should clearly and correctly lay out the steps that the student will need to organize to ensure its success. The task was designed with the understanding that all classrooms and students are different. Some students may need an extension activity, some may need to reduce the number of days planned for this task, and some may need to omit or simplify certain parts depending on what time during the school year this task is given.

Test Definition File

Item	Correct Answer	Practice Standard	Common Core Standard
1	See scoring rubric	Mathematical Practices 1, 4, and 6	7.EE.1, 2, 3, 4a, and 4b
			CCSS ELA-Literacy Standards
			WHST.6-8.5 WHST.6-8.2

SBAC Claims	PARCC sub-claims
4	D

Before the task:

- Students should be given ample practice in how to solve multi-step real-life mathematical problems using tools strategically, how to apply properties of operations to calculate with numbers in any form, and how to assess the reasonableness of answers using mental computation and estimation strategies.
- Students should review how to use variables to represent quantities in a real-world or mathematical problem, and how to construct simple equations and inequalities to solve problems by reasoning about the quantities.
- Students should review properties of operations.

Vocabulary:
Cost
Discount (percent)
Facility
Two-step equation/inequality
Proposal

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Setting the context:

Teacher: "Has anyone ever attended a party at an entertainment facility that has food as well as games like laser tag, bowling, arcade games?" [Let students respond.]

Teacher: "What kinds of information would you need before deciding to have a party at a place like this?"

[Students should be guided to respond with the cost of the activities, the cost of the food, and the number of people attending.]

Give an introduction to the task. A suggested introduction is below. Some of the information may need to be repeated each day.

Teacher: "You will be given a situation that involves putting a plan together for a track team to attend an entertainment facility for their end of the season party. You will need to use the costs of various activities to determine total cost for different numbers of people attending the party. You will determine how chaperones and discounts can affect the total cost, and you will create a proposal to the team Booster Club for funding the event.

Timeline:

There are two different options to choose.

Option 1: This option should take 3 days (or 3 hours with the assumption that math lessons/ activities take up an hour during a school day).

Day 1: The students should complete Part A and Part B, Questions 4 – 5.
Day 2: The students should complete Part B, Question 6 and Part C.
Day 3: The students should complete Part D.

Option 2: This option should take 4 days (or 4 hours with the assumption that math lessons/activities take up an hour during a school day).

Day 1: The students should complete Part A and Part B, Questions 4 – 5.
Day 2: The students should complete Part B, Question 6 and Part B, Group Work.
Day 3: The students should complete Part C.
Day 4: The students should complete Part D.

Task Information:

A calculator is optional and up to the discretion of the classroom teacher. This task can be completed without calculators.

Part A, Question 1:

There is an optional worksheet for students to use that may help to guide the completion of the table.

Part A, Question 2:

There is an optional support worksheet for students to use that may help to organize the components needed to calculate the total cost.

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Part A, Question 3:

The student may or may not have found the correct total cost for all attendees in the previous question. Whatever total the student arrived at in question 2 should be what is used to calculate the discounted price. Do not correct the student's work from the previous question but look to see consistency in the answers used.

There is an optional support worksheet for students to use that may help guide the determination of the reduced cost using a discount.

Part B, Question 4:

Because different parts of the country have unique entertainment facilities there are no websites given for reference. Before the task, research some local places where a team could have a party and give those links to the students. It is best to have narrowed down 3 – 4 places before beginning this part of the task.

Part B, Group Work:

The students should be paired up to work in a team. They should find a solution that allows the team to still have a quality party. They will need to edit the original plan with 3 changes that will allow the party to cost $500 or less. Each student should write the new plan on their own paper.

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Extension Activity

Sometimes the best part of playing arcade games is the chance to win prizes. At Good Times you can exchange the tickets you receive for playing an arcade game for a prize at their gift shop. One ticket is given after each arcade game played. Players may bring extra money to purchase more tokens. Good Times sells these additional tokens 4/$1.

The table below shows the available prizes and how many tickets each will cost.

Prize	# of Tickets	Prize	# of Tickets
Cotton Candy	15	Small stuffed animal	25
Kazoo	10	Bouncy ball	15
Slap bracelet	10	Large stuffed animal	40
Finger puppet	5	Temporary tattoo	5
Friendship bracelet	10	Funny face eraser	3
Glow stick	20	Pencil	5
Small vinyl football	35	Glow necklace	30

The student can create 4-5 word problems using the information about tokens and the prize table that requires a two-step equation.

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Scoring Rubric

Part A

4 point response:

The response demonstrates a high level of understanding. The response demonstrates:

- A strong ability to make sense of a real world problem and develop a solution that meets given requirements;
- A strong ability to calculate accurately with an appropriate degree of precision;
- A strong ability to check work and communicate reasoning in a clear and precise way;
- A strong ability to apply properties of operations as strategies to add, subtract, factor, and expand linear expressions with rational coefficients.

A level 4 response should include:

- A correct and complete table for Question 1;
- The correct total amount of money needed for 21 students and 8 adult chaperones given for Question 2, with work showing how the total cost of the party was calculated;
- The correct cost of the party using the email discount given for Question 3, with a clear and correct explanation with supporting work to find the cost of the party with the 15% discount.

Sample Response for Part A

Question 1:

Person	Bowling	Laser Tag	25 tokens	Food	Shoe rental
Student 1	4	8	6	7	2.99
Student 2	4	8	6	7	2.99
Student 3	4	8	6	7	2.99
Student 4	4	8	6	7	2.99
Student 5	4	8	6	7	2.99
Student 6	4	8	6	7	2.99
Student 7	4	8	6	7	2.99
Student 8	4	8	6	7	2.99
Student 9	4	8	6	7	2.99
Student 10	4	8	6	7	2.99
Student 11	4	8	6	7	2.99
Student 12	4	8	6	7	2.99
Student 13	4	8	6	7	2.99
Student 14	4	8	6	7	2.99
Student 15	4	8	6	7	2.99
Student 16	4	8	6	7	2.99
Student 17	4	8	6	7	0
Student 18	4	8	6	7	0
Student 19	4	8	6	7	0
Student 20	4	8	6	7	0
Student 21	4	8	6	7	0
Adult 1	4	8	6	7	2.99
Adult 2	4	8	6	7	2.99
Adult 3	4	8	6	7	2.99
Adult 4	4	8	6	7	2.99
Adult 5	0	0	0	0	0
Adult 6	0	0	0	0	0
Adult 7	0	0	0	0	0
Adult 8	0	0	0	0	0

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Question 2:
I added up the columns in the table for each activity then added up those totals to get the total amount of money needed for everyone to attend. 100 + 200 + 150 + 175 + 59.80 = $684.80

Question 3:
The discount Coach Kizere received in an email is good for 15% off the total cost of the party. If 15% is taken off of the price that means Coach Kizere will need to pay 85% of the total cost in advance to take advantage of the coupon. I multiplied 0.85(684.80) to find out how much Coach would need to pay. I got $582.08.

3 Point Response:

The response demonstrates a strong understanding, but the work is incomplete or contains minor errors.

A level 3 response is characterized by:

- In Question 1, a completed table;
- In Question 2, a strong understanding of how to calculate the total amount of money needed, demonstrated by a clear and correct explanation of how an equation was created to calculate the total cost, but a minor calculation error is made or the explanation is incomplete;
- A strategy for solving Question 3 that shows a strong understanding of how to find the discounted total by writing a percent decrease problem as a product of the original amount, but a minor calculation error is made or the work shown is incomplete.

2 Point Response:

The response demonstrates a basic but incomplete understanding.

A level 2 response is characterized by:

- In Question 1, a partially completed table; the prices are given for most of the activities listed, but half of the prices are incorrect because of minor errors made in the calculations;
- In Question 2, a basic understanding of how to calculate the total amount of money needed, demonstrated by an explanation or use of an equation to calculate the total cost, but two or more minor calculation errors or one major calculation or concept error is made;
- An incorrect or incomplete strategy for solving Question 3 resulting in an incorrect cost, but a basic understanding of how to find the discounted total using a percent decrease problem as a product of the original amount is demonstrated; the work or explanation contains two or more minor errors or one major error.

1 Point Response:

The response demonstrates minimal understanding.

A level 1 response is characterized by:

- In Question 1, a partially completed table; all the prices given are incorrect because of a misunderstanding of the information given in the text or major errors made in the calculations;
- In Question 2, a weak understanding of how to calculate the total amount of money needed, demonstrated by an explanation of the calculation, but two or more major calculation errors are made or the explanation is missing;

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- An incorrect or incomplete strategy for solving Question 3, resulting in an incorrect cost and a weak understanding of how to find the discounted total; the work or explanation contains two or more major errors or no work is shown.

0 Point Response:

There is no response, or the response is off topic.

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Part B

4 Point Response:

The response demonstrates a high level of understanding.

The response demonstrates:

- A strong ability to make sense of a real world problem and develop a solution that meets given requirements;
- A strong ability to check work and communicate reasoning in a clear and precise way;
- A strong ability to justify the solution and communicate this to others;
- A strong ability to calculate accurately with an appropriate degree of precision.

A level 4 response should include:

- All of the information given in a clear and concise manner for Question 4;
- A correct and complete table for Question 5;
- The correct total amount of money needed for 21 students and 8 adult chaperones for Question 6, with how the total cost of the party was calculated .

Sample response for Part B:

Question 4:
I think the team would enjoy a waterpark. If the party is planned for a weekend during late spring, then a waterpark would be a great place to celebrate. I researched Raging Waves Waterpark in Yorkville, IL at www.ragingwaves.com.

Question 5:

People Attending	Activity 1	Activity 2	Activity 3	Activity 4	Food
Student 1	17.99				2.50
Student 2	17.99				2.50
Student 3	17.99				2.50
Student 4	17.99				2.50
Student 5	17.99				2.50
Student 6	17.99				2.50
Student 7	17.99				2.50
Student 8	17.99				2.50
Student 9	17.99				2.50
Student 10	17.99				2.50
Student 11	17.99				2.50
Student 12	17.99				2.50
Student 13	17.99				2.50
Student 14	17.99				2.50
Student 15	17.99				2.50
Student 16	17.99				2.50
Student 17	17.99				2.50
Student 18	17.99				2.50
Student 19	17.99				2.50
Student 20	17.99				2.50
Student 21	17.99				2.50
Adult 1	17.99				2.50
Adult 2	17.99				2.50
Adult 3	17.99				2.50
Adult 4	17.99				2.50

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Adult 5	17.99				2.50
Adult 6	17.99				2.50
Adult 7	17.99				2.50
Adult 8	17.99				2.50
Total	521.71				72.50

Question 6:

There are 29 people that will attend the track party with 21 of them being students and 8 of them chaperones or coaches. The waterpark has a special for larger groups. A group of 21–50 people will have an admission price of $17.99 for each person. This price is good for an all-day pass. There are lots of activities for everyone, but all of the activities are included in the admission price. The group can also purchase a food plan for the day that includes a lunch and a snack. The lunch is a hot dog, bag of chips, and a small drink. The snack is a bag of chips, package of candy, or a piece of fruit. The food plan costs $2.50 a person. It will cost the same for the students and the adults to get in the waterpark. When you add the admission price and food plan together, the total price for each person is $20.49. The total price for the entire team, coaches, and chaperones is $594.21. There are no discounts with this venue. This amount is a little more than the planned party at Good Times if the coupon is used, but the kids may enjoy the waterpark more. There may be other factors to include like transportation costs and towel or locker rentals.

3 Point Response:

The response demonstrates a strong understanding, but the work is incomplete or contains minor errors.

A level 3 response is characterized by:

- In Question 4, all of the information, given in a clear and concise manner;
- In Question 5, a correct and complete table is shown but a minor calculation error is made;
- A strategy for solving Question 6 that shows a strong understanding of how to find the total cost of the party using the table and the equation, but a minor calculation error is made or the work shown is incomplete.

2 Point Response:

The response demonstrates a basic but incomplete understanding.

A level 2 response is characterized by:

- In Question 4, information given that may be incomplete or unclear;
- In Question 5, a completed table is shown, but two or more minor calculation errors or one major calculation or concept error is made; the prices are given for most of the activities listed, but half of the prices are incorrect because of minor errors made in the calculations;
- An incorrect or incomplete strategy for solving Question 6 resulting in an incorrect cost; the work or explanation contains two or more minor errors or one major error.

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1 Point Response:

The response demonstrates minimal understanding.

A level 1 response is characterized by:

- In Question 4, information given but it is incomplete or unclear;
- In Question 5, a completed table is shown, but two or more major calculations or concept errors are made; all the prices given are incorrect because of a misunderstanding of the information given in the text or major errors made in the calculations;
- An incorrect or incomplete strategy for solving Question 6 resulting in an incorrect cost; the work or explanation contains two or more major errors or no work is shown.

0 Point Response:

There is no response, or the response is off topic.

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Part C

4 Point Response:

The response demonstrates a high level of understanding.

The response demonstrates:

- A strong ability to make sense of a real world problem and develop a solution that meets given requirements;
- A strong ability to check work and communicate reasoning in a clear and precise way;
- A strong ability to justify the solution and communicate this to others;
- A strong ability to calculate accurately with an appropriate degree of precision.

A level 4 response should include:

- Answers to all of the questions, showing a strong understanding of why the student made the choices involved in the planning of the party and cost which is demonstrated by the complete and clear explanations given;
- Answers which show a strong ability to demonstrate the use of number sense and operations in order to solve the problems involving cost, and the calculations given are correct;
- Answers which show a strong understanding of how to develop a plan to ask the Booster Club to provide the money to pay for the party.

Sample response for Part C:

Question 7:
The track team has decided to have their party at Good Times. The coaches and parents felt that this was the best place since it is an entertainment facility that offers food and activities for large groups. Their activities include bowling ($4), laser tag ($8), and arcade games (25 tokens for $6). Bowling shoes can be rented for an additional $2.99. A snack bar offers food such as a slice of pizza or a hot dog and nachos, both for $7 each. Each food choice comes with a drink and one free refill.

Although there are 25 players on the team, only 21 plan to attend the party. Five players say they will bring their bowling shoes and, therefore, will not need to purchase the rentals. The total cost for the 21 students is $572.84.

Chaperones will be at the party to supervise the event. The two coaches plus 6 volunteer parents plan to attend for a total of 8 adults at the party. Good Times offers one adult to play for free for every five students. With 21 players attending, four adults can go for free. Four adults will have to pay. It will cost $111.96 for four adults to attend. Since the other 4 adults are free, $111.96 is the total cost for all 8 adults.

A discount was emailed to the coach for 15% off the party if the team pays in full in advance. If 15% is taken off the price, the team will need to pay $582.80 before the party in order to receive the discount.

An end of the year party is a great way to celebrate the time a team has spent together. This team has done some good research in finding a facility in which to do this. The Booster Club has money set aside for things such as team parties. If they agree to pay, the team can take advantage of the discount offered with the coupon and save over $100.

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3 Point Response:

The response demonstrates a strong understanding, but the work is incomplete or contains minor errors.

A level 3 response is characterized by:

- Answers to all of the questions that show a strong understanding of why the student made the choices involved in planning the party and cost, demonstrated by the complete and clear explanations given, but a minor calculation error is made or one answer is incomplete;
- Answers will show a strong ability to demonstrate the use of number sense and operations in order to solve the problems involving cost, but a minor error is made in one of the calculations.

2 Point Response:

The response demonstrates a basic but incomplete understanding.

A level 2 response is characterized by:

- Answers to the questions that show a basic understanding of why the student made the choices involved in planning the party and cost, demonstrated by the explanations given, but two or more minor calculation errors or one major calculation error is made or 2-3 answers are incomplete;
- Answers will show a basic ability to demonstrate the use of number sense and operations in order to solve the problems involving cost, with two or more minor calculation errors or one major calculation error being made.

1 Point Response:

The response demonstrates minimal understanding.

A level 1 response is characterized by:

- Answers to the questions that show a minimal understanding of why the student made the choices involved in planning the party and cost, demonstrated by the explanations given; there may be two or more major calculation errors made or four answers are incomplete or 1-2 answers are missing;
- Answers show a weak ability to demonstrate the use of number sense and operations in order to solve the problems involving cost, with two or more major calculation errors being made.

0 Point Response:

There is no response, or the response is off topic.

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Part D

4 Point Response:

The response demonstrates a high level of understanding.

The response demonstrates:

- A strong ability to make sense of a real world problem and develop a solution that meets given requirements;
- A strong ability to check work and communicate reasoning in a clear and precise way;
- A strong ability to justify the solution and communicate this to others;
- A strong understanding of how to develop and strengthen writing as needed by planning, revising, and focusing on how well purpose and audience have been addressed.

A level 4 response should include:

- A proposal that clearly outlines the plans of the track team for the end of the year party and includes the correct calculations for everything involved in the planning of the party; specifics that should be detailed in the proposal are the cost of each activity planned at the facility, the total cost for the students and the adults to attend the party, and the price of the party if the email discount is used;
- A proposal that contains the reasoning behind why the student feels the Booster Club should support this event; the reasons are strongly supported with at least six sentences that clearly demonstrate a strong understanding of the thought process involved in defending this proposal.

3 Point Response:

The response demonstrates a strong understanding, but the work is incomplete or contains minor errors.

A level 3 response is characterized by:

- A proposal that demonstrates a strong understanding of the plans of the track team for the end of the year party and includes the calculations for everything involved in the planning of the party; specifics that should be detailed in the plan are the cost of each activity planned at the facility, the total cost for the students and the adults to attend the party, and the price of the party if the email discount is used; the plan may contain 1-2 minor errors or may have 1-2 incomplete specifics;
- A proposal that contains the reasoning behind why the student feels the Booster Club should support this event; the reasons are supported with at least six sentences that clearly demonstrate a strong understanding in the thought process involved in defending this proposal, but 1-2 ideas are incomplete or incorrect due to minor errors made in the calculations.

2 Point Response

The response demonstrates a basic but incomplete understanding.

A level 2 response is characterized by:

- A proposal that demonstrates a basic understanding of the plans for the track team for the end of the year party and some of the calculations involved in the planning of the party; the proposal may contain more than two minor errors or one major error or may have three incomplete specifics or 1-2 missing specifics;

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- A proposal that contains the reasoning behind why the student feels the Booster Club should support this event; the reasons are supported with 4-5 sentences that demonstrate a basic understanding of the thought process involved in defending this proposal with three or more ideas being incomplete or incorrect due to errors made in the calculations.

1 Point Response:

The response demonstrates minimal understanding.

A level 1 response is characterized by:

- A proposal that demonstrates minimal understanding of the plans for the track team for the end of the year party and includes some of the calculations involved in the planning of the party; the proposal may contain more than two major errors or may have four or more incomplete specifics or 3-4 missing specifics;
- A proposal that contains the reasoning behind why the student feels the Booster Club should support this event; the reasons are supported with 2-3 sentences that demonstrate a minimal understanding in the thought process involved in defending this proposal with three or more ideas being incorrect due to errors made in the calculations or completely missing.

0 Point Response:

There is no response, or the response is off topic.

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