



Taking a Field Trip

1. Classroom Activity
2. Student Task
3. Task Specifications
4. Scoring Rubric

Classroom Activity

Note:

Since performance tasks span different parts of the assessment system (summative, interim, and as part of the digital library of resources), here are some suggestions for turning “Taking a Field Trip” into a rich, classroom-based learning task:

- Change the information to reflect locations that are within driving distance of your school.
- Ask students to collect the necessary information to inform the important variables.
 - How far is each location?
 - How many does a bus hold? What is the cost?
 - How much will we have to pay to enter? Are teachers and other adults free?
- Collect student data on preferences for these locations similar to the provided data in the task.

Setting the Context

Teacher: “Today, we are going to complete a task about planning a field trip.”

Teacher asks: “Have you ever been on a field trip with your school or a youth group? Or perhaps a trip to an interesting place with your family?” [For example, a museum or an aquarium, a natural park or an amusement park, a zoo, etc.]

Teacher: “Think back to the last time you went on a field trip with your school or on a trip with your family. What were the things that you liked best about the field trip? If you have not been on a field trip, what are some of the things you think would be fun about going someplace with your school class or your family?” [Teacher: Ask the class for volunteer responses or do a 2-minute pair share and then ask students to share some of their ideas.] For example:

- Being with friends
- Being with family
- Learning something new
- Seeing new places
- Getting out of school

Teacher asks: “What are some of the places you think you would like to go on a field trip?”

[Teacher: Record students’ responses on the board or ask one or more students to help record the list on the board or an overhead (whatever is the tool of choice in that classroom) while you are managing the discussion.]

Modeling a Process

After writing the list of places on the board or overhead, Teacher asks: "Let's assume our class is going on a field trip. Looking at this list, I would like to know for each of you, what would be your first choice for a place to go and what would be your second choice. You can vote two times. As I call out each of these possible places to go on a field trip, I'll ask you to raise your hand if it is your first choice."

[Teacher: Show the chart below on the overhead or chalkboard]

Teacher: "Then I'll ask again for you to raise your hand if it is your second choice." [Teacher: Ask for first and second choices for each destination and record (or ask a student to record) the first and second choices.]

Teacher: "I'm curious about the things that we might base our decision on. Let's talk about the top choices here. What are some of the reasons you voted for particular destinations? We call those things 'criteria' for making a decision."

[For each of the top 2 or 3 choices, ask students why they voted for that choice.] Teacher: "What did you particularly like about that destination?" [Teacher: Record reasons on a separate list.]

Teacher: "There are other things we might need to consider in taking a field trip. What do you think some of the other things are that the school and the students and parents might need to consider?" [Let students brainstorm—teacher can add these to the list. Issues like proximity, safety, and costs may come up. If costs don't come up, the teacher will introduce it.]

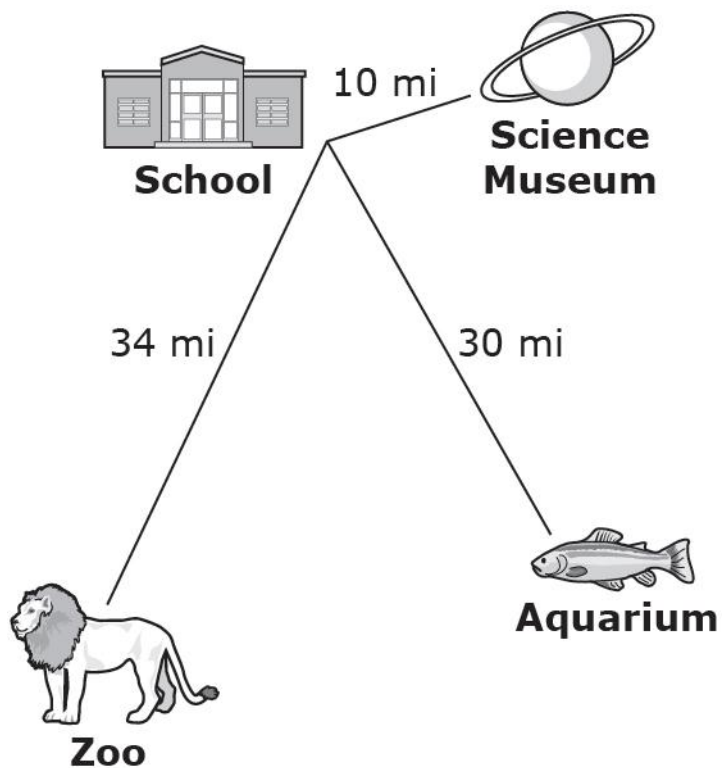
Teacher: "Among the things we have to think about is how much it costs. We may need to do fund-raising to afford to go on a field trip. What will we have to pay for? [Take suggestions if there are some.] If not mentioned, the teacher should include: "We will have to pay for the cost of getting to the destination and the cost of admission, if there is one."

Teacher says: "There are many ways to make decisions about where we would go on a field trip based on the information we have talked about. This will be part of the thinking you will need to do to complete the Taking a Field Trip task."

Student Task

Your class and your teacher are going on a field trip. There are three possible choices for the field trip: an aquarium, a science museum, or a zoo. Your teacher asked students to write down their first and second choices. In this task, you will determine where the class should go on the field trip based on the survey results and the cost per student.

This is a map of your school and the three different field trip locations.




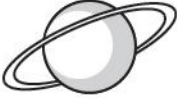

The class voted on which place to visit. These tables show the results.

Name	First Choice	Second Choice
Olivia	Zoo	Science Museum
Grace	Science Museum	Aquarium
Jessica	Aquarium	Zoo
Ruby	Zoo	Science Museum
Emily	Science Museum	Aquarium
Sophie	Aquarium	Zoo
Chloe	Aquarium	Science Museum
Lucy	Aquarium	Science Museum
Lily	Science Museum	Aquarium
Ellie	Science Museum	Aquarium
Ella	Zoo	Science Museum
Charlotte	Science Museum	Aquarium
Katie	Science Museum	Aquarium
Mia	Zoo	Science Museum
Hannah	Zoo	Science Museum

Name	First Choice	Second Choice
Jack	Aquarium	Zoo
Thomas	Zoo	Aquarium
Joshua	Zoo	Aquarium
Oliver	Science Museum	Aquarium
Harry	Aquarium	Zoo
James	Zoo	Science Museum
William	Science Museum	Science Museum
Samuel	Zoo	Aquarium
Daniel	Zoo	Science Museum
Charlie	Aquarium	Aquarium
Benjamin	Science Museum	Zoo
Joseph	Zoo	Aquarium
Callum	Zoo	Aquarium
George	Aquarium	Science Museum
Jake	Science Museum	Aquarium

- Based only on the results of the class votes, where would you recommend the class go on the field trip? Show your work or explain how you found your answer.

Here are some more facts about the trip.

	 Aquarium	 Science Museum	 Zoo
Distance from School (one way)	30 miles	10 miles	34 miles
Bus Charge	\$6 per mile	\$6 per mile	\$6 per mile
Entrance fee	\$6 per person	\$10 per person	\$2.50 per person

- The teacher and parent helpers do not pay an entrance fee.
- There are 30 students in the class.
- Only 1 bus is needed.
- The bus charge is for the entire busload of students (not for each student).
- Each student will pay the same amount.
- The school fund will pay the first \$200 of the trip.

2. Now we will think about the costs of the trip. How much will each student pay to go on each trip? Show your work or explain how you found your answer.
3. Daniel thinks that it will cost less to go to the zoo because the entrance fee is only \$2.50 per person. Explain why you agree or disagree with Daniel's thinking.
4. Write a short note to your teacher stating where you think the class should go on its field trip, based on how you would evaluate all the different factors, including student votes, costs, distance, and what you think would be fun.

Task Specifications

Item Id:	MAT.6.FIELDTRIP.PT
Title:	Taking a Field Trip
Grade:	6
Content Domain(s):	Ratios and Proportional Relationships
Assessment Target(S):	<p>Claim 2, Target A: Apply mathematics to solve problems arising in everyday life, society, and the workplace.</p> <p>Claim 2, Target C: Interpret results in the context of a situation.</p> <p>Claim 2, Target D: Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flowcharts, or formulas).</p> <p>Claim 3, Target C: State logical assumptions being used.</p> <p>Claim 3, Target F: Base arguments on concrete referents such as objects, drawings, diagrams, and actions.</p> <p>Claim 4, Target D: Interpret results in the context of a situation.</p>
Score Points:	See Scoring Rubric
Task Purpose:	The purpose of this task is to assess students' ability to use mathematics to make a decision based on understanding of proportional reasoning, including application of unit rates.

Scoring Rubric

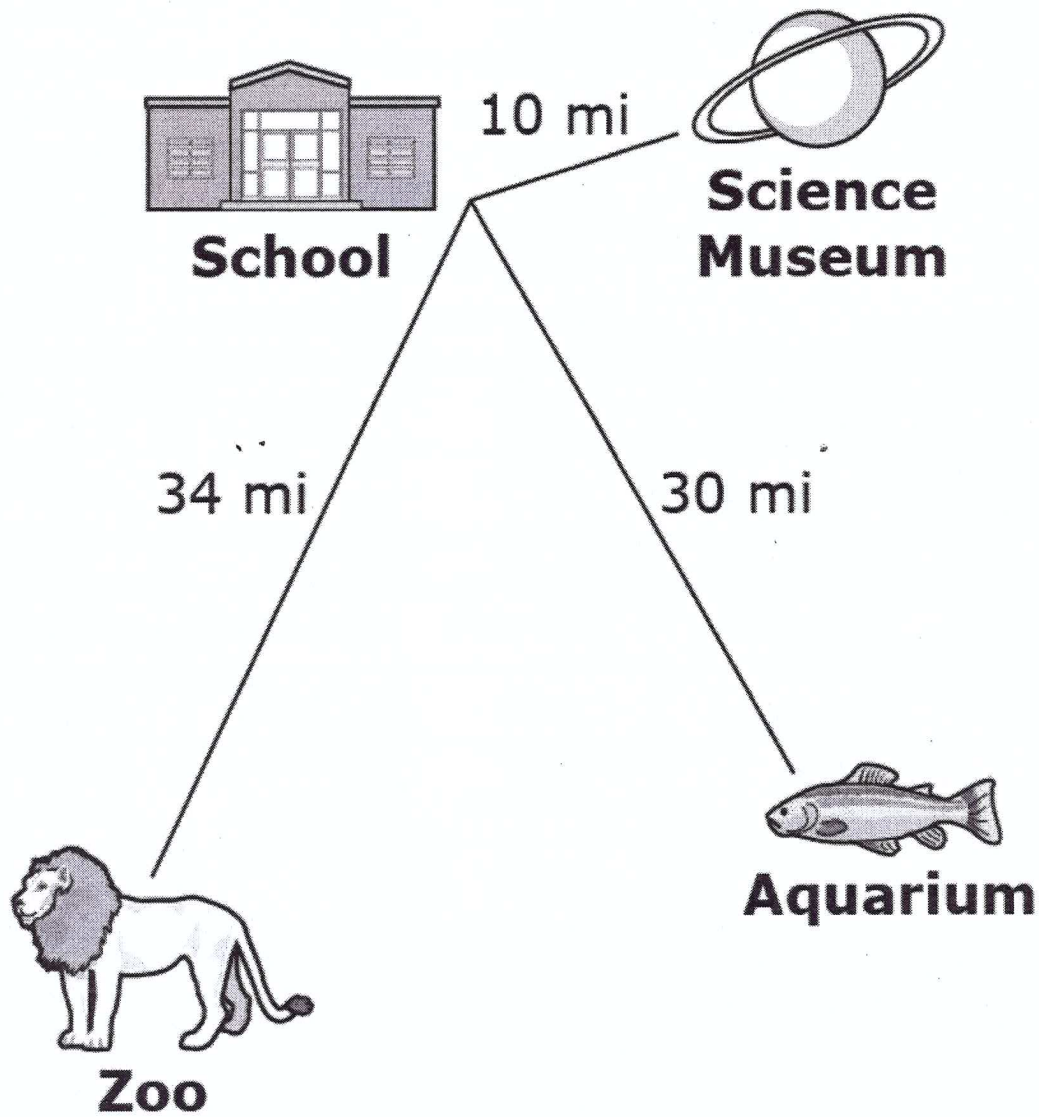
Scoring Criteria for Field Trip Task

Scorable Parts	Points	Claims
<p>1. Based only on the results of the class votes, where would you recommend the class go on the field trip? Show your work or explain how you found your answer.</p>	<p>0–1 Point</p> <p>Full credit for correctly answering “Zoo” based on total 1st place votes OR correctly answering “Aquarium” based on total 1st and 2nd place votes OR correctly answering “Science Museum” based on a weighted total for votes.</p> <p>Accept other valid responses.</p>	<p>Contributes evidence to Claim 3, Communicating Reasoning</p>
<p>2. Now we will think about the costs of the trip. How much will each student pay to go on each trip? Show your work or explain how you found your answer.</p>	<p>0–4 Points</p> <p>Full credit for total cost per destination calculated, award 1 point. Total distance per destination calculated, award 1 point. Cost per student per destination calculated, award 1 point. Final answer expressed in correct units, award 1 point.</p> <p>For minor errors (omitting roundtrip mileage, school fund) deduct 1 point for this section.</p>	<p>Contributes evidence to Claim 2, Problem-solving</p>
<p>3. Daniel thinks that it will cost less to go to the zoo because the entrance fee is only \$2.50 per person. Explain why you agree or disagree with Daniel’s thinking.</p>	<p>0–1 Point</p> <p>Full credit for using the calculations in the response above; the student would disagree with Daniel and make the argument that the Zoo option is \$2.10 more than the Science Museum option.</p> <p>Full credit for correct reasoning based on incorrect #2.</p>	<p>Contributes evidence to Claim 4, Modeling</p>

<p>4. Write a short note to your teacher stating where you think the class should go on its field trip, based on how you would evaluate all the different factors, including student votes, costs, distance, and what you think would be fun.</p>	<p>0–1 Point</p> <p>Full credit for a note that includes a recommendation based on reasoning that includes votes, costs, distance, and personal opinion.</p>	<p>Contributes evidence to Claim 3, Communicating Reasoning</p>
---	--	---

Sample 1

①



In this task, Now you will determine where the class should go on the field trip based on the survey results and the cost per student.

1. Based only on the results of the class votes, where would you recommend the class go on the field trip?

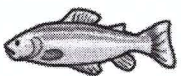
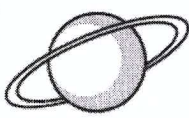
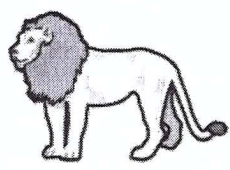
Show your work or explain how you found your answer.

Zoo 1st = 12
Zoo 2nd = 5
Science Museum 1st = 10
Science Museum 2nd = 11
Aquarium 1st = 8
Aquarium 2nd = 14
I would recommend the Zoo. I found my answer by looking at how many kids wanted to go to each place for their first choice, and chose the highest number.

1

Q2.

Here are some more facts about the trip.

	 Aquarium	 Science Museum	 Zoo
Distance from School (one way)	30 miles	10 miles	34 miles
Bus Charge	\$6 per mile	\$6 per mile	\$6 per mile
Entrance fee	\$6 per person	\$10 per person	\$2.50 per person

- o The teacher and parent helpers do not pay an entrance fee.
- o There are 30 students in the class.
- o Only 1 bus is needed.
- o The bus charge is for the entire busload of students (not for each student).
- o Each student will pay the same amount.
- o The school fund will pay the first \$200 of the trip.

Now we will think about the costs of the trip. How much will each student pay to go on each trip?

Show your work or explain how you found your answer.

$6(60) - 6(30) - 200$ <hr/> $360 + 180 - 200$ <hr/> $360 - 20$ <hr/> 340 <hr/> $30 \overline{) 340} = 11.50$	$6(20) + 10(30) - 200$ <hr/> $120 + 300 - 200$ <hr/> $120 + 100$ <hr/> 30 <hr/> 220 <hr/> 20 <hr/> 7.33	$6(34) + 2.5(30) - 200$ <hr/> $408 + 75 - 200$ <hr/> $408 - 125$ <hr/> 30 <hr/> 283 <hr/> $30 \overline{) 283} = 9.43$
--	---	--

Q3.

①

Daniel thinks that it will cost less to go to the zoo because the entrance fee is only \$2.50 per person.

Explain why you agree or disagree with Daniel's thinking.

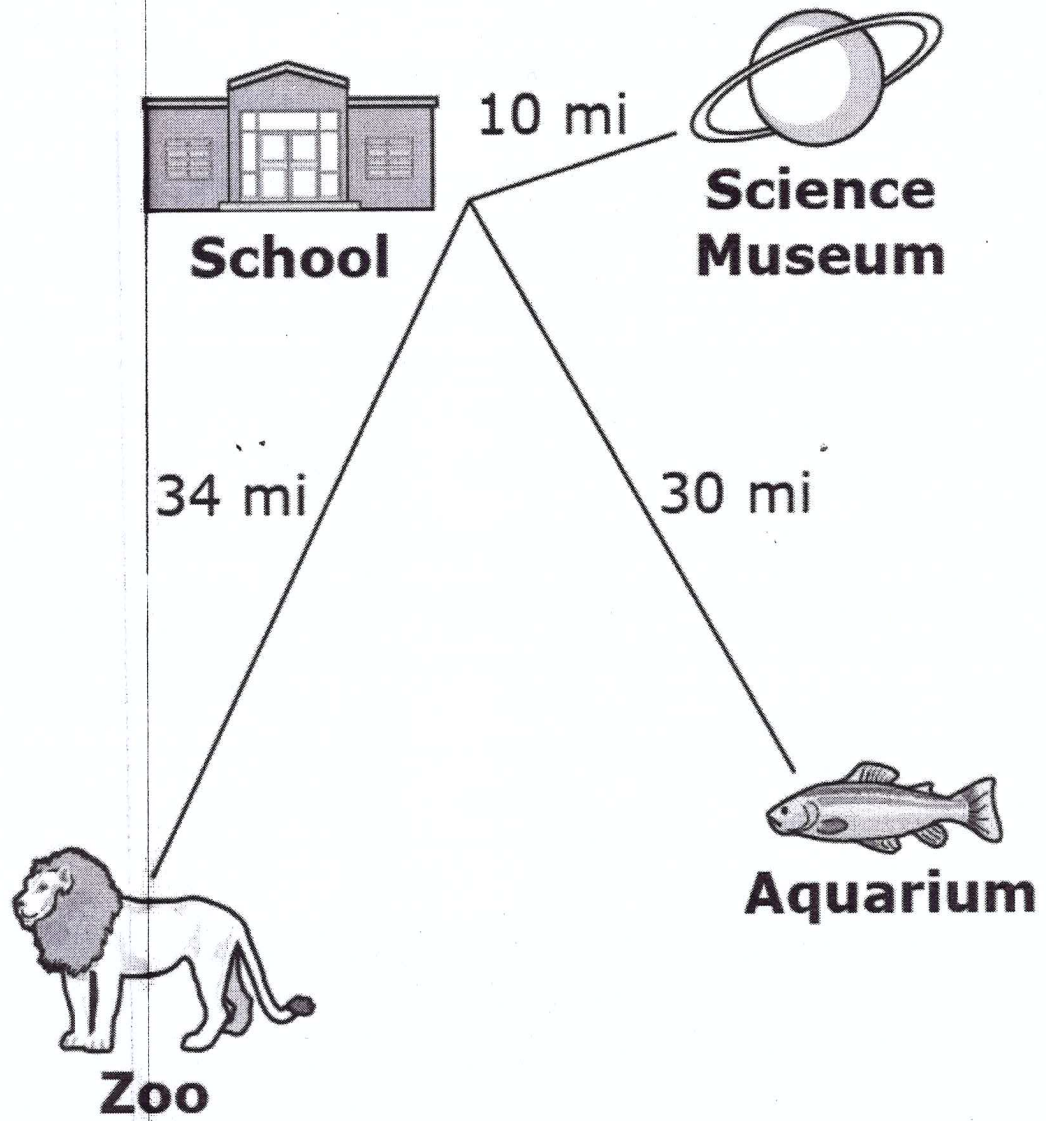
I disagree, because it costs \$9.43 to go to the zoo, compared to \$4.50 and \$7.33.

Q4.

Write a short note to your teacher stating where you think the class should go on its field trip, based on how you would evaluate all the different factors, including student votes, costs, distance, and what you think would be fun.

Dear Mr/Mrs. _____,
I think we should go to the science museum. This is because it is only 10 miles away, and 21 students put it as their 1st or 2nd choice. It is also only \$7.33 per student and would be very enjoyable for the whole class.

From,
Student _____



In this task, Now you will determine where the class should go on the field trip based on the survey results and the cost per student.

1. Based only on the results of the class votes, where would you recommend the class go on the field trip?

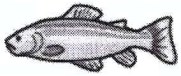
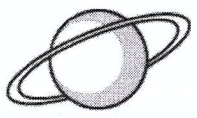
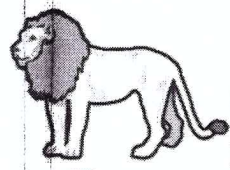
Show your work or explain how you found your answer.

I would reconmend the zoo because it had the ~~most~~ most first-choice votes.

2

Q2.

Here are some more facts about the trip.

	 Aquarium	 Science Museum	 Zoo
Distance from School (one way)	30 miles	10 miles	34 miles
Bus Charge	\$6 per mile	\$6 per mile	\$6 per mile
Entrance fee	\$6 per person	\$10 per person	\$2.50 per person

- The teacher and parent helpers do not pay an entrance fee.
- There are 30 students in the class.
- Only 1 bus is needed.
- The bus charge is for the entire busload of students (not for each student).
- Each student will pay the same amount.
- The school fund will pay the first \$200 of the trip.

Now we will think about the costs of the trip. How much will each student pay to go on each trip?

Show your work or explain how you found your answer.

$A: \frac{30 \cdot 6 \cdot 2}{30} + 6$ $12 + 6 = \$18$ $\frac{\$18}{\times 30} = 540$ $540 - 200 = \$340$
 $\frac{\$340}{30} =$
 $(\$11.33)$ $30 \cdot 6 \cdot 2 + 6(30)$ $360 + 180 = 540 - 200 = 340$

$S: (10 \cdot 6 \cdot 2) + 10(30)$ $Z: (34 \cdot 6 \cdot 2) + 2.5(30)$
 $120 + 300 = 420 - 200 = 220$ $408 + 75 = 483 - 200 = 283$
 $\frac{\$220}{30} = \7.33 $\frac{\$283}{30} = \9.43

$30 \cdot 13.000 = 3900$ $\frac{3900}{1000} = 3.9$

Daniel thinks that it will cost less to go to the zoo because the entrance fee is only \$2.50 per person.

Explain why you agree or disagree with Daniel's thinking.

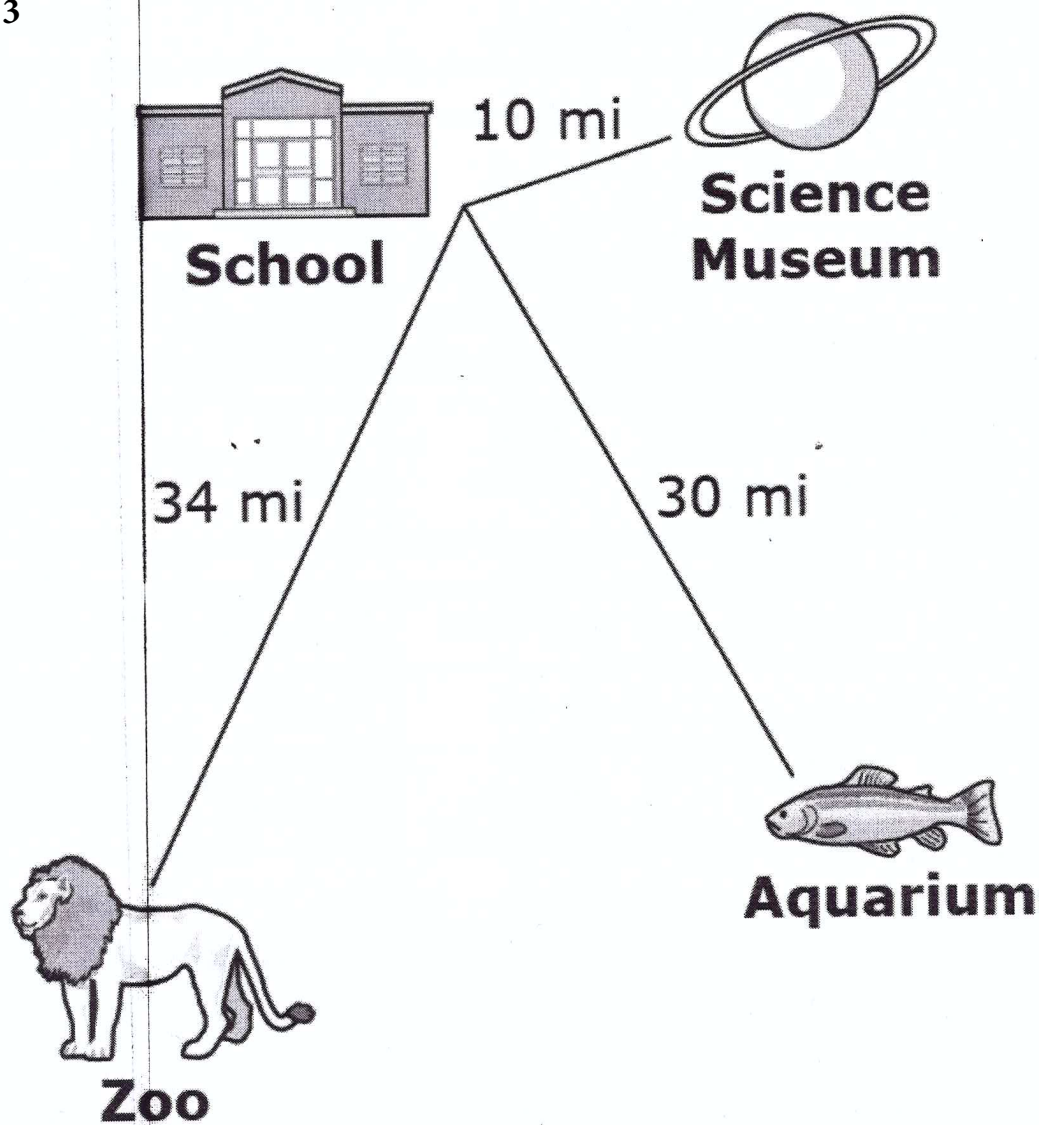
I disagree because overall, the science museum costs less per person.

Q4.

Write a short note to your teacher stating where you think the class should go on its field trip, based on how you would evaluate all the different factors, including student votes, costs, distance, and what you think would be fun.

Dear Mrs. _____
Based on the class's first votes and the fact that it's the second least expensive, I think we should go to the zoo.
From, _____

Sample 3



In this task, Now you will determine where the class should go on the field trip based on the survey results and the cost per student.

1. Based only on the results of the class votes, where would you recommend the class go on the field trip?

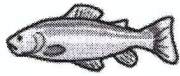
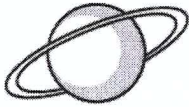
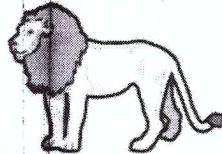
Show your work or explain how you found your answer.

They should go to the zoo as it was the most voted #1 choice and it is the cheapest option out of the three choices

3

Q2.

Here are some more facts about the trip.

	 Aquarium	 Science Museum	 Zoo
Distance from School (one way)	30 miles	10 miles	34 miles
Bus Charge	\$6 per mile	\$6 per mile	\$6 per mile
Entrance fee	\$6 per person	\$10 per person	\$2.50 per person

- The teacher and parent helpers do not pay an entrance fee.
- There are 30 students in the class.
- Only 1 bus is needed.
- The bus charge is for the entire busload of students (not for each student).
- Each student will pay the same amount.
- The school fund will pay the first \$200 of the trip.

Now we will think about the costs of the trip. How much will each student pay to go on each trip?

Show your work or explain how you found your answer.

<p><u>A</u></p> $30 \times 6 = 180$ $30 \times 6 = 180$ <hr/> <p>\$360</p>	<p><u>SM</u></p> 60 $+300$ <hr/> <p>\$360</p>	<p><u>ZOO</u></p> 234 $\times 6$ <hr/> <p>204</p> $+ 15$ <hr/> <p>\$279</p>
--	---	---

Q3.

\$160
school
pays

\$160
School
pays

\$279 → \$70 school
pays

Daniel thinks that it will cost less to go to the zoo because the entrance fee is only \$2.50 per person.

Explain why you agree or disagree with Daniel's thinking.

I agree because the lower entrance fee is so much less that even the 34 miles can't bring up the price to the other prices.

Q4.

Write a short note to your teacher stating where you think the class should go on its field trip, based on how you would evaluate all the different factors, including student votes, costs, distance, and what you think would be fun.

Dear Ms. Teacher

I feel we should go to the zoo as even though we will travel farther than the other options, the entrance fee will be ^{so much} lower ~~and that~~ that the school doesn't have to pay such a high amt as the other options.