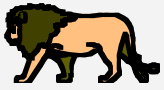




A Day Out

Mr Richards, a teacher from Bosworth School, plans to take 30 students on a school trip. Here are the places they could visit.

Growlets Zoo  36 miles from Bosworth Entrance fee \$2.50 per person	Prison Museum  30 miles from Bosworth Entrance fee \$6 per person	Space Science Show  10 miles from Bosworth Entrance fee \$10 per person
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The class vote on which place to visit.
Here are the results:

Name First Choice Second choice

Olivia	Zoo	Space show
Grace	Space show	Prison museum
Jessica	Prison museum	Zoo
Ruby	Zoo	Space show
Emily	Space show	Prison museum
Sophie	Prison museum	Zoo
Chloe	Prison museum	Space show
Lucy	Prison museum	Space show
Lily	Space show	Prison museum
Ellie	Space show	Prison museum
Ella	Zoo	Space show
Charlotte	Space show	Prison museum
Katie	Space show	Prison museum
Mia	Zoo	Space show
Hannah	Zoo	Space show

Name First Choice Second choice

Jack	Prison museum	Zoo
Thomas	Zoo	Prison museum
Joshua	Zoo	Prison museum
Oliver	Space show	Prison museum
Harry	Prison museum	Zoo
James	Zoo	Space show
William	Space show	Space show
Samuel	Zoo	Prison museum
Daniel	Zoo	Space show
Charlie	Prison museum	Prison museum
Benjamin	Space show	Zoo
Joseph	Zoo	Prison museum
Callum	Zoo	Prison museum
George	Prison museum	Space show
Jake	Space show	Prison museum

Here are some further facts about the trip.

The bus company charge \$6 per mile. The school fund will pay the first \$200 of the trip. Teachers will go free. Each student will pay the same amount.

1. Taking both first and second choices into account, where should they go for the trip?
Explain clearly how you make your decision.
2. How much will each person need to pay to go on the trip you have chosen?
Explain carefully how you decide.

	A Day Out	Points	Section points																
1.	<p>Counts the number of First and Second choices for each venue. Allows, say 2 points for First choice and 1 point for Second choice we get:</p> <table> <tr> <th></th><th>First choice</th><th>Second choice</th><th>Total Points</th></tr> <tr> <td>Zoo</td><td>12</td><td>5</td><td>29</td></tr> <tr> <td>Prison</td><td>8</td><td>14</td><td>30</td></tr> <tr> <td>Space</td><td>10</td><td>11</td><td>31</td></tr> </table> <p>Decides that Space is the favorite choice. Accept alternative choices based on alternative decisions.</p>		First choice	Second choice	Total Points	Zoo	12	5	29	Prison	8	14	30	Space	10	11	31	<p>2</p> <p>3</p> <p>1</p>	6
	First choice	Second choice	Total Points																
Zoo	12	5	29																
Prison	8	14	30																
Space	10	11	31																
2.	<p>The total cost is Entrance fee $30 \times \\$10 = \\300 Bus $10 \times 2 \times \\$6 = \\120 (accept \$60) Minus \$200 \$220 (accept \$160)</p> <p>Cost per student = $\\$220 \div 30 = \\7.22 (accept \$5.34)</p> <p>Accept alternative costs based on alternative choices.</p>	<p>1</p> <p>1</p> <p>1</p> <p>1</p>	4																
	Total		10																