We Scream for Ice Cream   *P006 scoring rubric*

Math Domain

☐ Number/Quantity	☐ Shape/Space	☐ Function
✓ Chance/Data	☐ Arrangement	

Math Actions (possible weights: 0 through 4)

0 Modeling/Formulating	1 Manipulating/Transforming
2 Inferring/Drawing Conclusions	3 Communicating

Math Big Ideas

☐ Scale	☐ Reference Frame	✓ Representation
☐ Continuity	☐ Boundedness	☐ Invariance/Symmetry
✓ Equivalence	☐ General/Particular	☐ Contradiction
☐ Use of Limits	☐ Approximation	☐ Other

1. There are 24 students in Mr. Max's class. Students may explain this answer by saying "I counted the ice cream cones", or, occasionally, "I counted all the squares and then subtracted the empty ones."

2. They should buy vanilla and orange sherbet, since these two flavors received the most votes. Some students will say chocolate rather than orange sherbet "because I like chocolate the best"-- this is not an appropriate answer!

3. Nine students will not get their favorite flavor. This may be expressed as "all the people who voted for chocolate and strawberry", or "24 [total students] – 15 [vanilla and orange sherbet voters]."

Extension

4. Students will have varying ways of explaining the answer that there are twelve students in this class. Some may use their answer for question 1 and say that there are only half as many in this class, because there are two cones for each student. Others may take a less efficient, but equally correct route, of grouping the cones in groups of two, and then counting up the groups.

	partial level (1 or 2)	**full level (3)**
Modeling/ Formulating (weight: 0)		
Transforming/ Manipulating (weight: 1)	Student performs some of the required additions and/or subtractions correctly.	Student performs all of the required additions and subtractions correctly.
Inferring/ Drawing Conclusions (weight: 2)	Student is able to interpret some of the data presented in the pictograph, and arrives at a reasonable conclusion for questions **1**, **2** or **3**.	Student is able to interpret all of the data presented in the pictograph, and arrives at reasonable conclusions for questions **1**, **2** and **3**.
Communicating (weight: 3)	Explanations for the numerical answers in questions **1**, **2** and **3** are either unclear, incomplete, or incorrect.	Explanations for all numerical answers are clear and complete, and make use of appropriate mathematics vocabulary and comparison words.