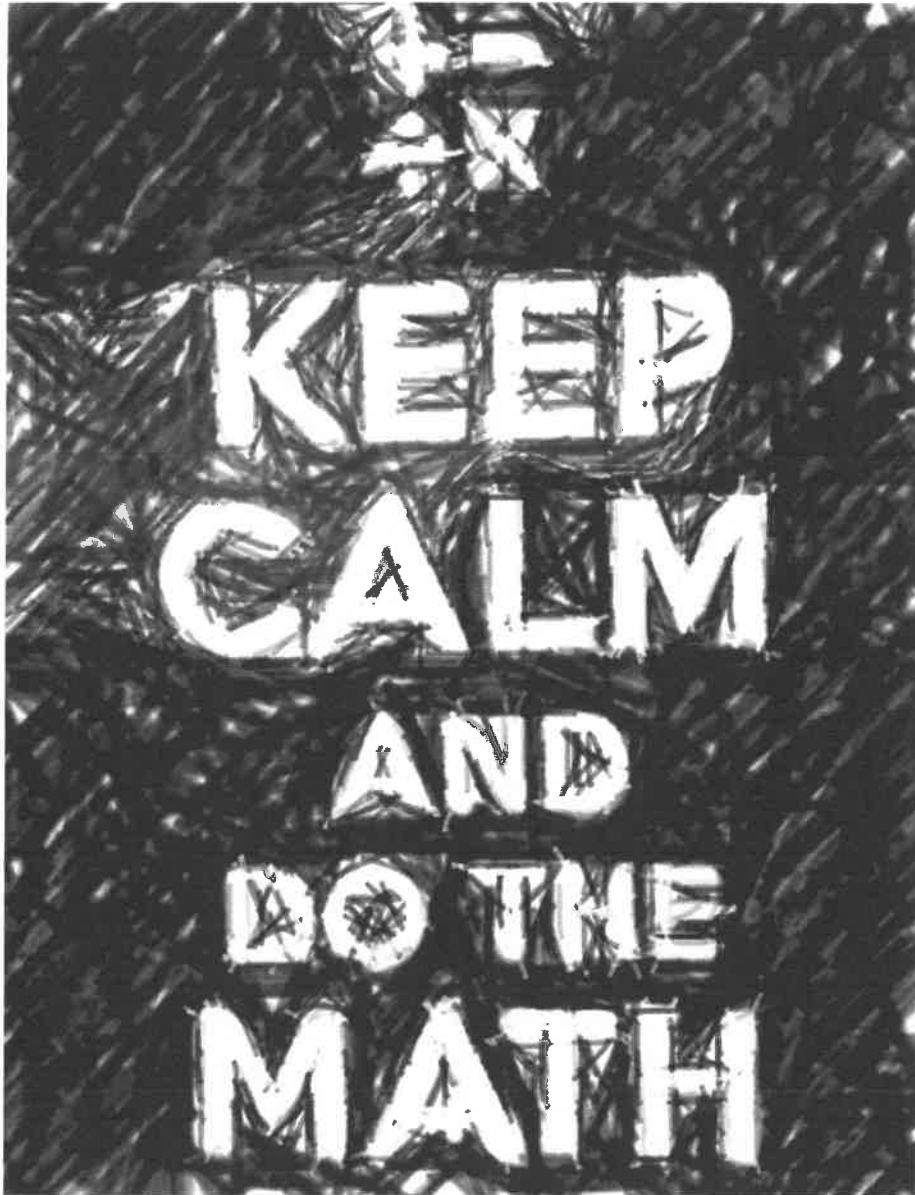NAME: _____

Math P.A.T. Prep
Interpreting Graphs - SOLUTIONS
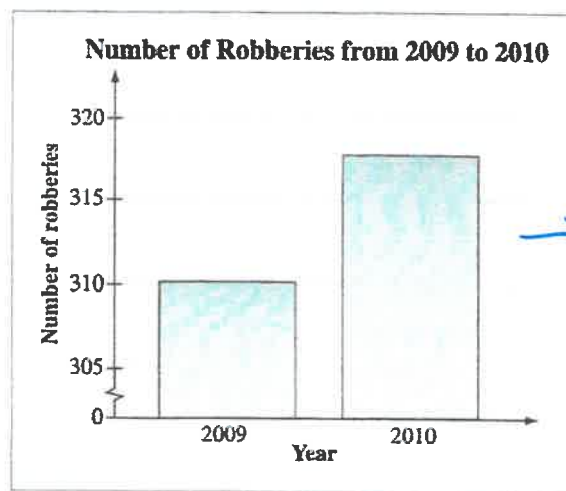

St. Brendan School
Mr. Martinez

INTERPRETING GRAPHS

THINGS TO LOOK OUT FOR

- ANY GRAPH THAT DOES NOT START AT ZERO is MISLEADING
- BAR GRAPH : BARS HAVE TO BE OF SAME WIDTH
- LINE BARS : THE "DOTS" HAVE TO REPRESENT THE SAME CATEGORY

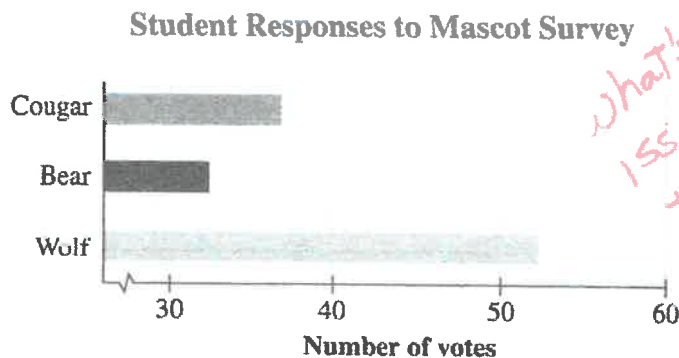The local newspaper of a large city printed the following graph with the following headline:

"Robberies are Predicted to Double in 2011"

Number of Robberies from 2009 to 2010

this looks like it doubled from 2009 to 2010, but that's misleading

40. The newspaper headline is **not** a reasonable interpretation of the graph shown above because the

   A. width of the bars is exaggerated
   B. scale of the y-axis is misleading
   C. probability is based on theoretical data
   D. probability is based on experimental data

The student council of a senior high school surveyed 120 out of 250 Grade 10 students to determine which of three animals should be the school's new mascot. The results of the survey are shown below.

Student Responses to Mascot Survey

[Handwritten annotations: "what's the issue with the amount of students interviewed?" • "the issue is that only the grade 10s were interviewed for something all students should vote for!"]

In a survey, 500 people were asked to name their favourite sport. The results of the survey are shown below.

Favourite Sport

Hockey	174
Football	122
Baseball	55
Soccer	19
Other	130

[Handwritten: "STRategy — out of 500, 122 is close to what? ½, ⅓, ¼"]

[Handwritten notes: CIRCLE GRAPHS — • Always determine the 100% • Calculate the % for each category (this is what will be represented as a "piece" of the pie) • Angle → • Convert the % to decimal — Angle = decimal × 360°]

30. If the data results were displayed on a circle graph, then the measure of the angle that would represent how many people selected football would be approximately

   A. 33°
   B. 88°
   C. 122°
   D. 244°

*[Handwritten work: 500 people — 100%
football → $\frac{122}{500} \times 100\% = 24.4\%$
$(0.244 \times 360°) \approx 87.84°$ → 88°]*