Name _____ Date _____ Class _____

Project

WHOOPING IT UP!

Activity 1: Cranes and Crabs *Use after Lesson 3-2*

The Photography Club sells calendars featuring photos of whooping cranes and blue crabs. Blue crabs are one of the most important sources of food for the migratory flock of whooping cranes during their winter stay at the Aransas National Wildlife Refuge in Texas.

The Crane and Crab Calendars are sold in two sizes. The large size sells for $14.95 and the small size sells for $7.50.

1. Last year, 268 calendars were sold for a total income of $2293.10.
   How many large calendars did the club sell? How many small calendars did the club sell?

   _____

2. Assume that a large calendar was purchased for each classroom in the school and that each classroom has an average of 30 students. About what percent of the students bought small calendars?

   _____

3. How many classrooms are there in your school? _____

   Apply the same assumptions and the same percent you found in problem 2 to your school. What would be a good estimate of the total income if similar calendars were sold at your school?

   _____

Activity 2: Photos and Profits *Use after Lesson 3-4*

Suppose your school will sell calendars and that the cost for printing a 30-page calendar, including the covers (which may or may not have photographs) is $0.35 per page with a photograph and $0.14 per page if there is no photograph. You plan to make all your calendars the same size and sell them for $10.95 each. You estimate that you will sell a calendar to 40% of the teachers and 30% of the students in your school. You must have at least 12 photographic pages, one for each month. You think you can sell 100 more calendars (to parents, for example) if there is a photograph on the cover.

1. Fill in the data about your school here:

   Number of teachers: _____ Estimated number of sales to teachers: _____

   Number of students: _____ Estimated number of sales to students: _____

2. Write a system of inequalities that can be used to determine the possible profit from the sale of the calendars.

3. How many calendars should you print in order to maximize the profit? _____
   Explain your response.

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Holt Algebra 2