3–4

Name _____ Date _____

Challenge

Estimate or Exact?

Solve each problem either by rounding and estimating or by finding the exact answer. Write either *estimate* or *exact*. Explain why you chose the method you used.

1. Liz bought 6 packages that contained 24 balloons each. She also rented a helium tank to blow up the balloons. The tank is large enough to blow up 150 balloons. Is there enough helium in the tank to blow up all the balloons Liz bought?

2. A firefighter visited all the classrooms in a school during Fire Prevention Week. She brought 350 plastic firefighter hats for the students. There are 7 grades in the school, with 48 students in each grade. Did she bring enough hats for each student in the school to receive one?

3. The mayor has 9 packages of pencils with “Vote for me” printed on them. Each package contains 35 pencils. If 327 people attend a rally for the mayor, will the mayor have enough pencils to give one to each person?

3–4 Name _____ Date _____

Challenge

Estimate or Exact?

Answers may vary. Sample answers are given.

Solve each problem either by rounding and estimating or by finding the exact answer. Write either *estimate* or *exact*. Explain why you chose the method you used.

1. Liz bought 6 packages that contained 24 balloons each. She also rented a helium tank to blow up the balloons. The tank is large enough to blow up 150 balloons. Is there enough helium in the tank to blow up all the balloons Liz bought?

   Exact. I rounded to estimate 6 × 20 = 120. Since there are more than 20 balloons in each package, the answer is greater than 120. I didn't know how much greater, so I found the exact answer. 6 × 24 = 144. There is enough helium in the tank.

2. A firefighter visited all the classrooms in a school during Fire Prevention Week. She brought 350 plastic firefighter hats for the students. There are 7 grades in the school, with 48 students in each grade. Did she bring enough hats for each student in the school to receive one?

   Estimate. I rounded to estimate 7 × 50 = 350. Since the actual number of students in each grade is less than 50, the estimate is greater than the actual product. She brought enough hats.

3. The mayor has 9 packages of pencils with "Vote for me" printed on them. Each package contains 35 pencils. If 327 people attend a rally for the mayor, will the mayor have enough pencils to give one to each person?

   Exact. I rounded to estimate 9 × 40 = 360. This is greater than the actual product of 9 × 35, but I didn't know how much greater. So I multiplied 9 × 35 = 315. The mayor will not have enough pencils.