

70 & 71
1/15

Before Lesson TO DO List:

1. Get out your homework and make sure your name is on it

2. Write the _____ in your agenda

3. Fill in table of contents

4. Glue in your notes.

5. Find the decimal of _____ and _____

wksht.

Percents Quiz Friday 1/18

L26 p. 70&71 Percents: Finding a Part



Percent Problems

$$\frac{\text{Part}}{\text{Whole}} = \frac{\%}{100}$$
$$\frac{\text{is}}{\text{of}} = \frac{\%}{100} \quad \frac{\text{Difference}}{\text{Original}} = \frac{\%}{100}$$

Percents

Sample: 15 is what percent of 75?

0%	20%	40%	60%	80%	100%
0	15	30	45	60	75

❖ So, 15 is 20% of 75.

PERCENT APPLICATION: FINDING THE PART

Finding the [%] percent of a number can be helpful in Every day life.

At Paulson Middle School, 75% of the sixth grade class is making a B or higher. If there are 24 students in the sixth grade class, then how many are making a B or higher?

WHAT DO WE KNOW?

75% B ↑ %
24 total st. w

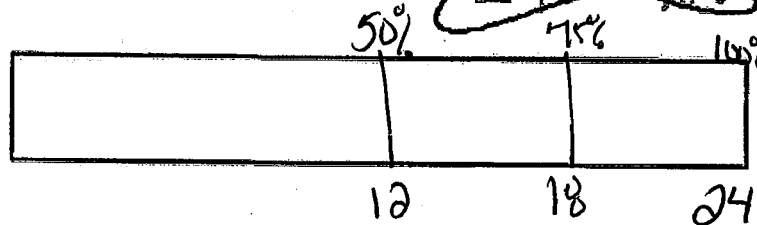
WHAT DO WE NEED TO KNOW?

part who B ↑ P?

ARE WE LOOKING FOR THE PART OR THE WHOLE?

part
Tape

WHAT DOES THE STRIP DIAGRAM LOOK LIKE?



$$\frac{P}{W} = \frac{\%}{100}$$
~~$$\frac{x}{24} = \frac{75}{100}$$~~

$$100x = 75 \cdot 24$$

$$\frac{100x}{100} = \frac{1800}{100}$$

$$x = 18$$

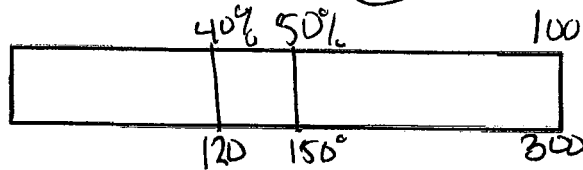
DOES MY SOLUTION ANSWER THE QUESTION?

18 Students made a B ↑

Set up a ^{tape} strip diagram for each of the word problems below. Do not solve.

1. The campus demographics state that 40% of the students are male. If there are 300 students, then how many are male?

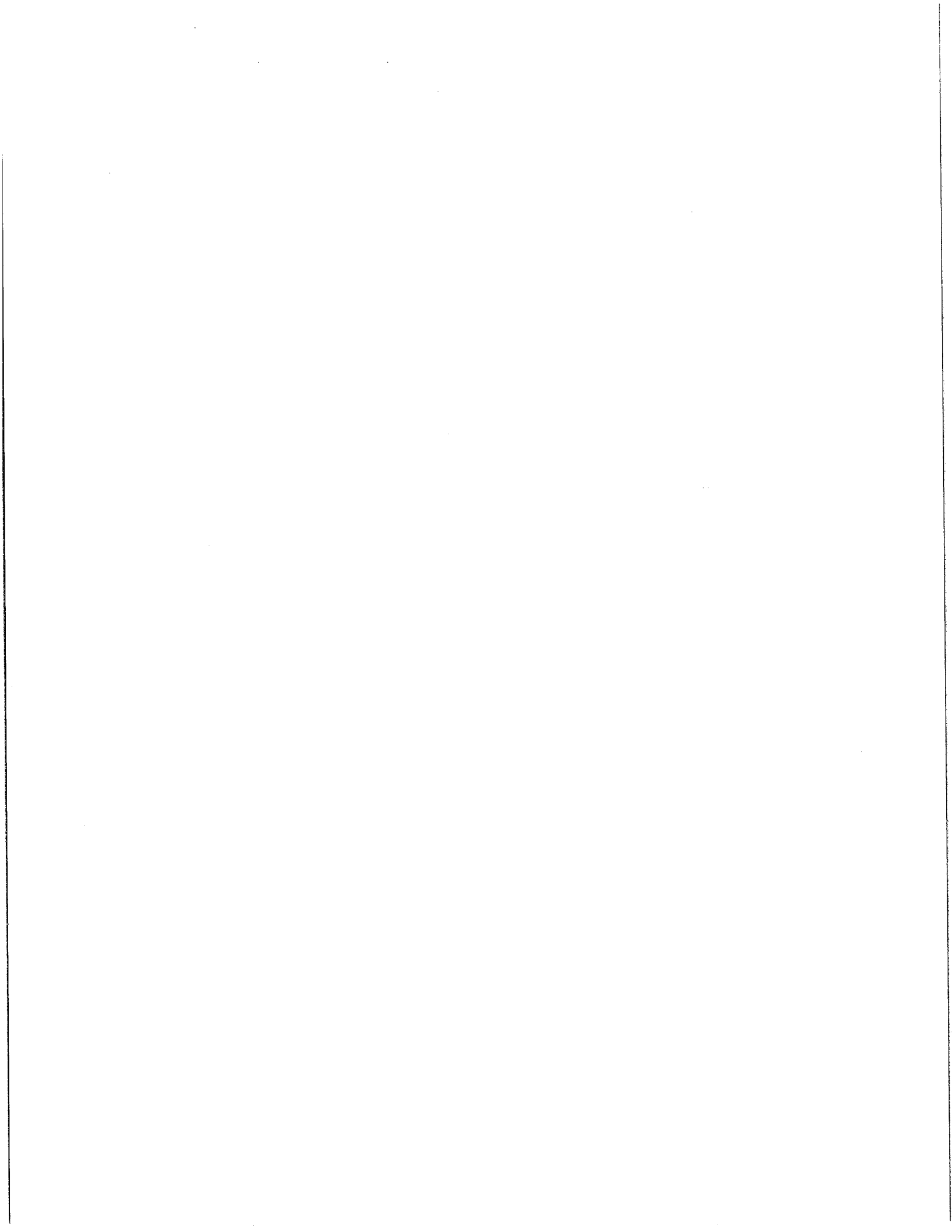
$$\frac{P}{W} = \frac{\%}{100} \quad \frac{x}{300} = \frac{40}{100} \quad x = 120$$



120 Students made a B or higher

2. In Janet's neighborhood, 65% of the households have a landline phone. If there are 80 households in the neighborhood, then how many have a landline phone?





Setting up a Proportion can be helpful when the problems are more complicated. A proportion is simply two equal ratios

Label the ^{top} diagram below. Then, set up a percent proportion.

The campus demographics state that 42% of the students are male. If there are 300 students, then how many are male?



$$\begin{array}{r} 42 \\ \times 3 \\ \hline 126 \end{array}$$

$$\frac{\%}{100} = \frac{\text{PART}}{\text{WHOLE}}$$

$$\frac{x}{300} = \frac{42}{100}$$

$x = 126$ students are male

3. There are 80 local little league teams. Thirty percent of them have players under the age of 7. How many teams have players under the age of 7?

$\frac{P}{W} = \frac{\%}{100}$

~~$\frac{x}{80} = \frac{30}{100}$~~

$$\begin{array}{r} 100x = 80 \cdot 30 \\ 100x = 2400 \\ \hline x = 24 \end{array}$$

24 teams have players under 7.

4. In Seattle, WA, it is said to rain 66% of the time. Since there are 365 days in a year, approximately how many days is it expected to rain?

$\frac{P}{W} = \frac{\%}{100}$

~~$\frac{x}{365} = \frac{66}{100}$~~

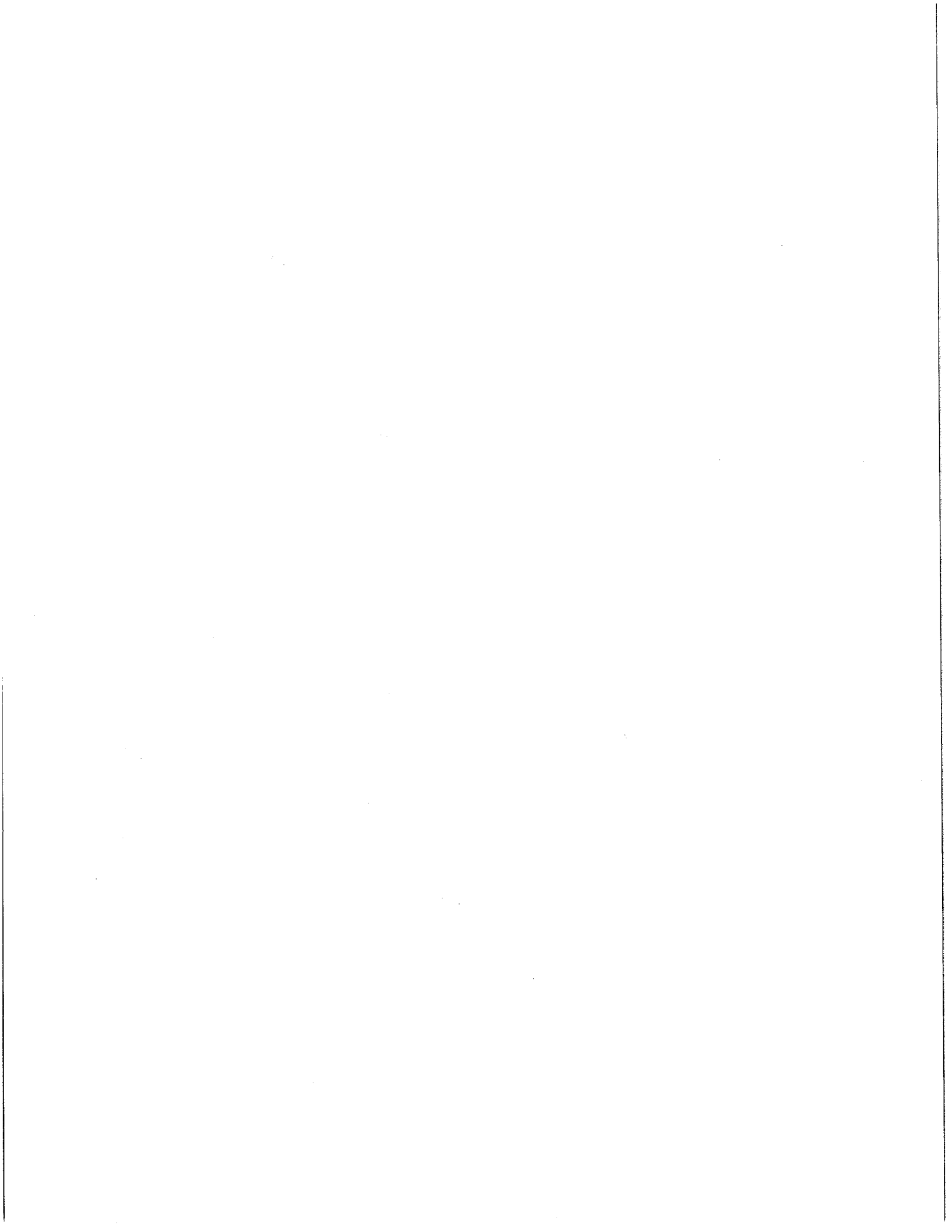
$$\begin{array}{r} 100x = 66 \cdot 365 \\ 100x = 24090 \\ \hline x = 240.9 \end{array}$$

241 days

5. Stephen Curry plays for the Golden Gate Warriors and touts a 90% free throw shooting record. If he shot 12 free throws in a game, then approximately how many did he miss?

6. At the post office, 45% of packages ship as Priority Mail. If 160 packages are shipped today, then how many will not go as Priority Mail?

Summarize today's lesson:



Name _____

PERCENT: FINDING THE PART


$$\frac{IS}{OF} = \frac{\%}{100}$$

DIRECTIONS: Use your notebook pages 70 & 71 as a resource. Solve each problem.

$$\frac{P}{W} = \frac{\%}{100}$$


1. At a local amusement park, 70% of the rides are made for kids who are 48 inches and taller. If there are 80 rides in total, then how many are made for kids who are 48 inches or taller?

Show your work:

 **Target Statement (answer)** _____

2. The amusement park also has water rides. Thirty percent of the 80 rides are water related. How many water related rides does the park have?

Show your work:

 **Target Statement (answer)** _____

3. The amusement park has 400 employees. 72% of them are part time employees. How many are full time employees?

Show your work:

Target Statement (answer) _____

4. On an average Saturday, 15% of tickets sold are child tickets. If there were 460 tickets sold on Saturday, then how many were sold to children?

Show your work:

Target Statement (answer) _____

5. Of 460 visitors on Saturday, 54% of them stayed until the park closed. About how many visitors stayed until the park closed?

Show your work:

Target Statement (answer) _____

Handwritten scribble or signature in the bottom left corner.