

NAME _____

DATE _____

Student Worksheet for Percent Up or Down

In the rectangles shown on pages 1.3 and 1.4 side “a” is reduced in length by 20% while side “b” is increased by 20%. The perimeter of the rectangle before the change is

- a. bigger than
- b. equal to
- c. smaller than

the perimeter of the rectangle after the change.

Without actually measuring the perimeters circle the answer above that you think is correct. In the space below write why you think that your answer is correct.

When you moved point P around on page 1.6 what happened to the perimeter of the rectangle? _____

Was it possible to create several different rectangles having different shapes that had the same perimeter? Circle Yes or No.

How many rectangles having a perimeter of 30 units do you think it is possible to create?

On page 1.8 you are asked some questions. Answer them here.

What is 20% of 10 units of side “a”? _____ What is 20% of 5 units of side “b”? _____

If you reduced side “a” by 20% how long would it be? _____

If you increased side “b” by 20% how long would it be? _____

For page 1.7 answer the following questions.

What was the perimeter of the original rectangle before the changes? _____

What is the perimeter of the rectangle after the changes? _____

Did the changes make the perimeter smaller or larger? Circle either Smaller or Larger.

Would you like to change you answer to the first question on this worksheet? Circle either Yes or No.

If you circled Yes, what would your new answer be? _____

Why do you think that the rectangle changed the way it did?

For page 1.11 given the same 10 X 5 rectangle and allowed to only increase one side by 20% and decrease the other side by 20%, how would you make the perimeter of the rectangle

bigger? _____

smaller? _____

Could you use the same rectangle (10 X 5) and the same rules (one side up by 20% and the other side down by 20%) and make a change that would cause the new rectangle to have the same perimeter as the old rectangle? Circle Yes or No.

Explain why you think that your last answer (Yes or No) is correct.
