

Name _____

Date _____

1.

- a. Sort the following expressions by rewriting them in the table.

The product is less than the boxed number:	The product is greater than the boxed number:
828 × 0.921 0.05 × 0.1	12.5 × 1.989 0.007 × 1.02 2.16 × 1.11 321.46 × 1.26

$\boxed{12.5} \times 1.989$

$\boxed{828} \times 0.921$

$\boxed{321.46} \times 1.26$

$\boxed{0.007} \times 1.02$

$\boxed{2.16} \times 1.11$

$\boxed{0.05} \times 0.1$

- b. What do the expressions in each column have in common?

In column one, the boxed number is being multiplied by a factor less than 1. In column two, the boxed number is being multiplied by a factor greater than 1.

2. Write a statement using one of the following phrases to compare the value of the expressions. Then, explain how you know.

*is slightly more than**is a lot more than**is slightly less than**is a lot less than*

a. 14×0.999

is slightly less than

14

because 0.999 is slightly less than 1

b. 1.01×2.06

is slightly more than

2.06

because 1.01 is slightly more than 1

c. $1,955 \times 0.019$

is a lot less than

1,955

because 0.019 is a lot less than 1

d. $2,000$
Two thousand $\times 1.0001$

is slightly more than

two thousand

because 1.0001 is slightly more than 1

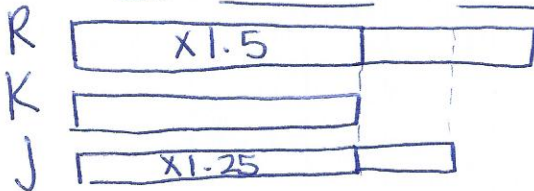
e. 0.002
Two-thousandths $\times 0.911$

is slightly less than

two-thousandths

because 0.911 is slightly less than 1

3. Rachel is 1.5 times as heavy as her cousin, Kayla. Another cousin, Jonathan, weighs 1.25 times as much as Kayla. List the cousins, from lightest to heaviest, and explain your thinking.



- ① Kayla
② Jonathan
③ Rachel

Rachel is heavier than Jonathan because $1.5 > 1.25$. Kayla is the lightest because Rachel and Jonathan are both slightly more than 1 times the weight of Kayla.

4. Circle your choice.

a. $a \times b > a$

For this statement to be true, b must be

greater than 1

less than 1

Write two expressions that support your answer. Be sure to include one decimal example.

$$2.5 \times 1.1 = 2.75$$

$$2.75 > 2.5$$

$$2.5 \times 1.3 = 3.25$$

$$3.25 > 2.5$$

b. $a \times b < a$

For this statement to be true, b must be

greater than 1

less than 1

Write two expressions that support your answer. Be sure to include one decimal example.

$$2.5 \times 0.1 = 0.25$$

$$0.25 < 2.5$$

$$2.5 \times 0.9 = 2.25$$

$$2.25 < 2.5$$