# Enrichment Packet #4

Due: Monday 10/1

NAME: _____

Name _____

Enrichment
**2-5**

# So Many Decisions!

**Estimation**

The local sports store is holding an anniversary sale. As part of the sale, every 100th customer gets a chance to win prizes. Each selected shopper gets 15 minutes to fill a shopping cart with sporting goods and clothing. If the total price of the items is more than $280 but less than $300, the shopper keeps everything in the cart.

Here is a list of sporting goods and clothing. Place a check mark next to any item you would put in the cart. Then find your total.

| Item | Price | Item | Price |
|---|---|---|---|
| ___ Baseball | $ 4.99 | ___ Bicycle | $178.99 |
| ___ Football | $17.95 | ___ Tennis racket | $ 29.79 |
| ___ Basketball | $21.99 | ___ Tennis balls | $ 7.25 |
| ___ Hockey puck | $ 8.50 | ___ Sweatshirt | $ 16.99 |
| ___ Baseball glove | $34.99 | ___ Shoes | $ 41.50 |
| ___ Running shorts | $11.50 | ___ Weight set | $ 89.99 |
| ___ Cycling gloves | $16.00 | ___ In-line skates | $ 53.69 |
| ___ Stopwatch | $ 3.49 | ___ Gym ball | $ 1.99 |
| ___ Football helmet | $60.00 | ___ Baseball bat | $ 27.99 |
| ___ Golf clubs | $99.99 | ___ Golf balls | $ 14.50 |

1. What is your total price?

_____

2. Did you win your items?

_____

3. How did you decide which items to choose?

_____

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Enrichment
**2-6**

# Transportation Conclusions

**Data**

Each person made a conclusion about the data in the table. Think about each person's conclusion. Do you agree? Explain.

**Airports and Railways**

| Country | Number of Airports | Length of Railways (km) |
|---|---|---|
| Australia | 455 | 47,738 |
| Finland | 148 | 5,741 |
| France | 501 | 29,085 |
| Germany | 554 | 47,201 |
| Hungary | 46 | 7,937 |
| Japan | 175 | 23,556 |
| New Zealand | 118 | 4,128 |

**1.** Kylie compared the length of railways in Australia and Japan. She concluded that Australia has 24,282 kilometers of railway more than Japan.

_____

_____

**2.** Franklin looked at the number of airports in Germany and Hungary. He concluded that Germany has 508 more airports than Hungary.

_____

_____

**3.** Theona concluded that France has 14 more airports than Hungary, New Zealand, Finland, and Japan altogether.

_____

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**2-7**

# Flying High

**Number Sense**

| | Atlanta | Boston | Chicago | Dallas | Denver |
|---|---|---|---|---|---|
| Boston | 946 | | | | |
| Chicago | 606 | 867 | | | |
| Dallas | 721 | 1,555 | 796 | | |
| Denver | 1,208 | 1,767 | 901 | 654 | |
| Detroit | 505 | 632 | 235 | 982 | 1,135 |

Use the air distance chart above to write a number sentence for each problem. Then solve.

1. How many more miles does it take to get from Denver to Atlanta than to get from Detroit to Atlanta and Chicago to Atlanta combined?

_____

2. Jorge flew from Dallas to Detroit, from Detroit to Denver, and from Denver back to Dallas. How many miles did Jorge fly altogether?

_____

3. Maria flew from her home city of Boston to Atlanta, back home to Boston, and then back to Atlanta. How many miles did she fly altogether?

_____

4. How many more miles is it to fly round-trip between Dallas and Boston than between Denver and Chicago?

_____

_____

Name _____

Enrichment
**3-1**

# Hurray Array!

**Visual Thinking**

You can demonstrate multiplication by showing objects in an array. There are two ways to set up an array with two factors.

For each array given, create a different array that shows the same factors. Then write the multiplication sentence for each picture.

**1.** ○○○○○○
○○○○○○ =
○○○○○○
○○○○○○

_____

_____

**2.** □□□□□□
□□□□□□ =
□□□□□□

_____

_____

There are at least two arrays for any product: the product × 1 and 1 × the product. Sometimes there are other possible arrays for a product.

**3.** Draw the other array for the product 25.
Write the multiplication sentence.

_____

**4.** Draw the other array for the product 9.
Write the multiplication sentence.

_____

Sometimes there are several different arrays that can be drawn for a product.

**5.** Draw an array for the product 28 that is not 28 × 1, 1 × 28, 7 × 4, or 4 × 7. Write the multiplication sentence for your array.

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Name _____

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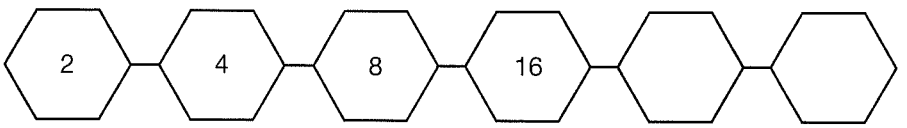
**3-2**

# Patterns, Patterns, Everywhere

**Patterns**

Complete each pattern and write the rule for the pattern you find.
Hint: The pattern may involve more than one operation.
For example, the numbers 2, 4, 16, 32, 128 form a pattern of multiplying by 2, then multiplying by 4.

Pattern Rule

**1.** 

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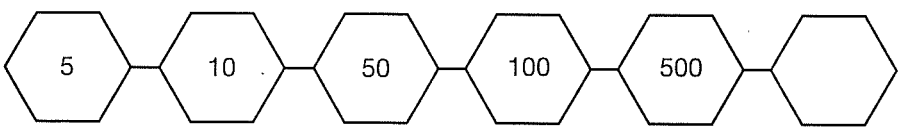
**2.** 

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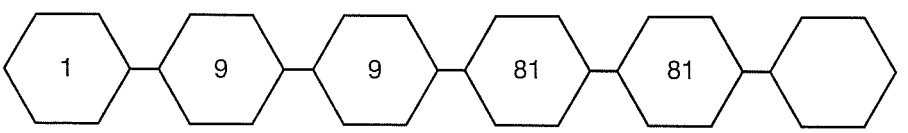
**3.** 

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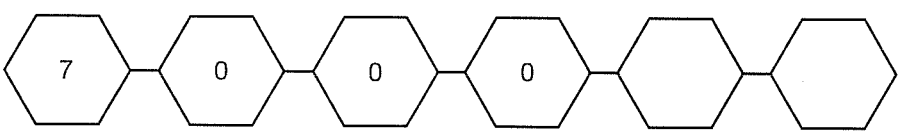
**4.** 

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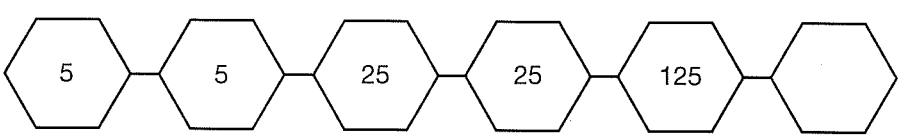
**5.** 

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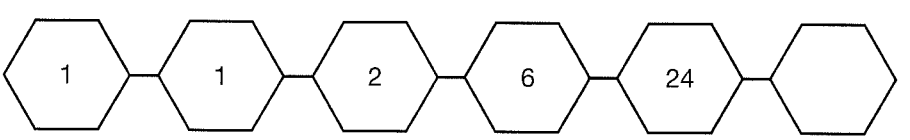
**6.** 

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**7.** Although a single starfish may have as many as 44 arms, we are most familiar with starfish that have 5 arms. Write a number pattern for 6 starfish if each had 5 arms. How many arms would those starfish have in all?

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