Enrichment Packet #8

Due: Monday 10/29

NAME: _____

Name _____

Estimating Products

Science It takes 24 hours (one full day) for the earth to make one complete turn. The earth makes 365 complete turns every year.

1. Estimate the number of hours it takes the earth to make 8 complete turns.

_____

2. Estimate the number of times the earth turns in 5 years.

_____

3. Does the earth turn more or less than 2,700 times in 9 years? Explain.

_____

_____

4. Which is the closest estimate for the number of hours it takes the earth to turn 7 times?

A. 210 hours B. 280 hours C. 140 hours D. 100 hours

_____

Jake rented a video game system for 5 days. The system cost $18 for a 1-day rental. He also rented 2 games. Each game cost $12.00 for a 5-day period.

5. About how much did Jake pay to rent the system and the games for 5 days? _____

6. Estimate the total cost of renting the video game system only for 6 days. _____

7. About how much would it cost to rent the system only for 3 days? _____

Name _____

Enrichment
5-1

In the Blink of an Eye

Patterns

1. You take about 4,000 steps in 12 hours. About how many steps do you take in 8 days? Fill in the table. Look for a pattern.

Time	12 h	24 h	2 days	4 days	8 days
Number of Steps					

2. About how many steps do you take in a 30-day month? Explain how you found your answer.

_____

_____

3. You breathe about 10 times every 30 seconds. About how many times do you breathe in 10 hours? Fill in the table. Look for a pattern.

Time	30 sec	1 min	10 min	1 h	10 h
Number of Breaths					

4. About how many times do you breathe in a day? Explain how you found your answer.

_____

_____

5. Your eyes blink about 150 times in 10 minutes. About how many times do you blink in 3 minutes? Fill in the table. Look for a pattern.

Time	10 min	5 min	4 min	3 min	2 min	1 min
Number of Blinks						

6. About how many times do your eyes blink every 30 seconds? Explain how the table you made can help you find the answer.

_____

_____

Name _____

Estimating Greater Products

Science The speed a planet travels around the Sun is measured in kilometers per second. The table shows the speed and the number of Earth days it takes a planet to revolve around the Sun.

Planet	Speed around Sun (km/s)	Time to revolve around Sun
Mercury	48	90 Earth days
Venus	35	225 Earth days
Earth	30	365 Earth days
Mars	24	687 Earth days

1. About how many kilometers will Venus travel in 185 seconds?

_____

2. About how many kilometers will Mercury travel in 14 minutes?

_____

3. About how many kilometers will Mars travel

in one minute? _____

in one hour? _____

in one Earth day? _____

4. About how many times will Mercury revolve around the Sun in one Earth year? _____

5. About how much farther does Mercury travel in 195 seconds than Venus? _____

6. The Jackson family spends $85 per week on food. Abouthow much will they spend on food in one year?

_____

7. A school district has 38 school buses. Each bus seats 48 students. There are 2,300 students enrolled. Estimate to find if the district will have to purchase additional buses. Explain. _____

_____

_____

Name _____

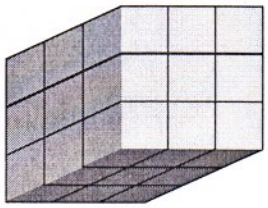
Enrichment
5-2

Block Party

Visual Thinking

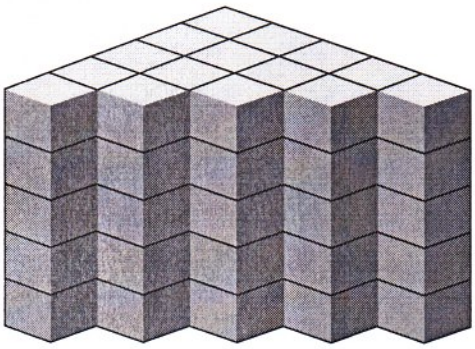
Find the pattern of blocks in each structure. Then write the total number of blocks.

1. There are 3 levels.



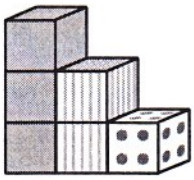
Total number of blocks: _____

2. There are 5 levels.



Total number of blocks: _____

3. Copy the pattern of 3 shaded blocks, 2 striped blocks, and 1 spotted block. Repeat this pattern to draw a side view of a staircase with 12 shaded blocks, 8 striped blocks, and 4 spotted blocks.

Pattern: 

Name _____

Estimating Products

R 4-6

You can use what you know about rounding numbers to help you estimate products.

Example 1

Estimate 469 × 32.

Round each number to its greatest place so that you can multiply mentally. Round 469 to the nearest hundred, and round 32 to the nearest ten.

469 (rounds to) × 32 (rounds to)

500 × 30 = 1,500

Example 2

Estimate $7.65 × 73.

Round each number to its greatest place. Round 7.65 to the nearest ones, and round 560 to the nearest hundred.

7.65 (rounds to) × 73 (rounds to)

8 × 70 = 560

Remember:

Round up if the digit to the right of the greatest place is 5, 6, 7, 8, or 9.

Round down if the digit to the right of the greatest place is 0, 1, 2, 3, or 4.

Estimate each product. Round to the greatest place.

1. 32 × 7 = _____ **2.** 38 × 2 = _____ **3.** 5 × 29 = _____

4. 8 × 79 = _____ **5.** 41 × 39 = _____ **6.** 53 × 82 = _____

7. 13 × 27 = _____ **8.** 73 × 66 = _____ **9.** 92 × 23 = _____

10. 57 × 14 **11.** 81 × 28 **12.** 62 × 45 **13.** 76 × 34