Math Connections for Parents

Welcome to Fifth Grade Module 6! In Module 6, students begin to work with the coordinate plane, and locate and plot points using two coordinates. They use the coordinate system to explore the relationship between pairs, ordered pairs, patterns, and lines. They then generate rules for lines on the plane. As this is the last module for fifth grade, students will spend time on problem solving and will use all four operations (addition, subtraction, multiplication, division) to solve multi-step problems.

Important Words and Concepts

- Axis: fixed line for the measurement of coordinates
- Coordinate: number that identifies a point on a plane
- Coordinate pair, Ordered pair: two numbers that are used to identify a point on a plane, e.g. (3,2)
- Origin: labeled (0,0) the point where the x-axis and y-axis intersect
- Quadrant: any of the four areas created by diving a plane by an x-axis and y-axis

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KEY STANDARDS

- Write a simple expression with numbers without evaluating them (e.g. recognize that 3 x (18,932 + 921) is three times as large as 18,932 + 921)
- Generate two numerical patterns using two given rules. Form ordered pairs from the rule and graph them on the plane (e.g. if the rule is "add 3"
- Graph points on a coordinate plane and interpret the values points in a real world situation.
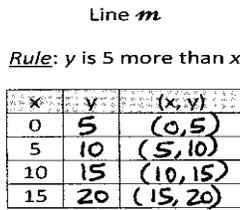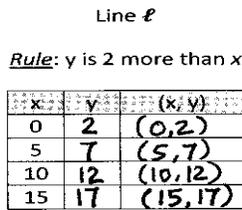
Multiplication and Division

By the end of the year, students should have a strong mastery of basic operations (addition, subtraction, multiplication and division). Over the summer, continue to practice these facts in real-life situations. Students will pick up with these concepts in sixth grade math.

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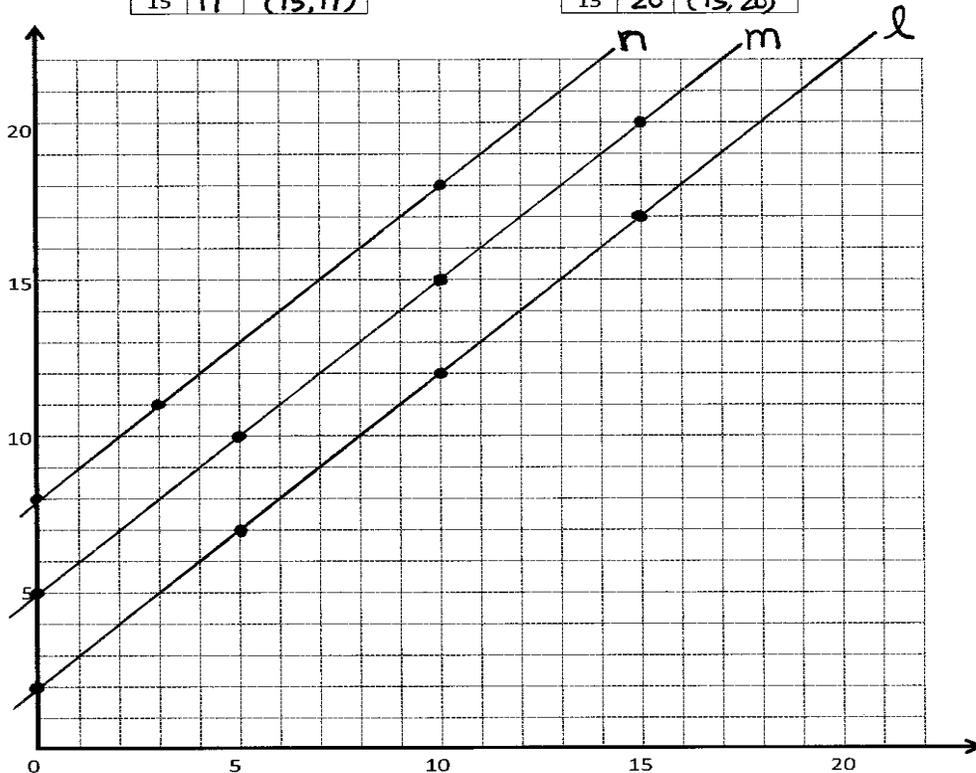
Graphics and Strategies you may see…

Students will use a **coordinate grid** to locate and name points using a **coordinate pair.**
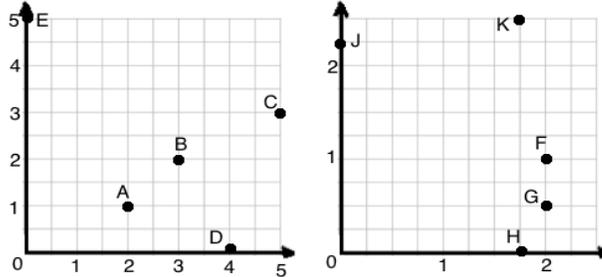
Students will also work on plotting lines on the coordinate plane, and analyzing the points in order to recognize rules to form the lines.

Line ℓ

Rule: y is 2 more than x

x	y	(x, y)
0	2	(0,2)
5	7	(5,7)
10	12	(10,12)
15	17	(15,17)

Line m

Rule: y is 5 more than x

x	y	(x, y)
0	5	(0,5)
5	10	(5,10)
10	15	(10,15)
15	20	(15,20)

Line n:
Y is 8 more than x
0, 8
3, 11
10, 18

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Students will also spend time working on complex, **multi-step problems**. They will be looking at possible solutions and explaining how those students arrived at their answers. An example of one is given below:

AAA Taxi charges $1.75 for the first mile and $1.05 for each additional mile. How far could Mrs. Leslie travel for $20 if she tips the cab driver $2.50?
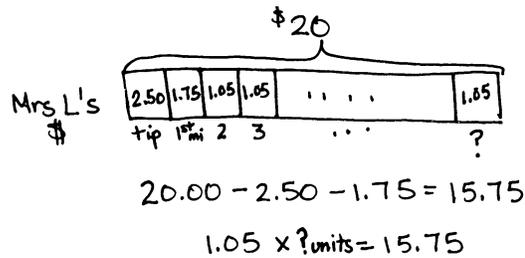
Solution A   **Solution B**

mile
1   $1.75 + 2.50 (tip) = $4.25
2   $4.25 + 1.05 = $5.30
3   $5.30 + 1.05 = $6.35
6   $6.35 + 3.15 = $9.50
9   $9.50 + 3.15 = $12.65
12 $12.65 + 3.15 = $15.80
15 $15.80 + 3.15 = $18.95
16 $18.95 + 1.05 = $20.00

Mrs. Leslie can travel 16 miles for $20.

$20

Mrs L's $ | 2.50 | 1.75 | 1.05 | 1.05 | · · · · | 1.05 |
tip 1stmi 2 3 · · · ?

20.00 − 2.50 − 1.75 = 15.75

1.05 × ? units = 15.75

$$105 \overline{)1575} \quad 15$$
−105
525
−525
0

Mrs. Leslie can go 16 miles.

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