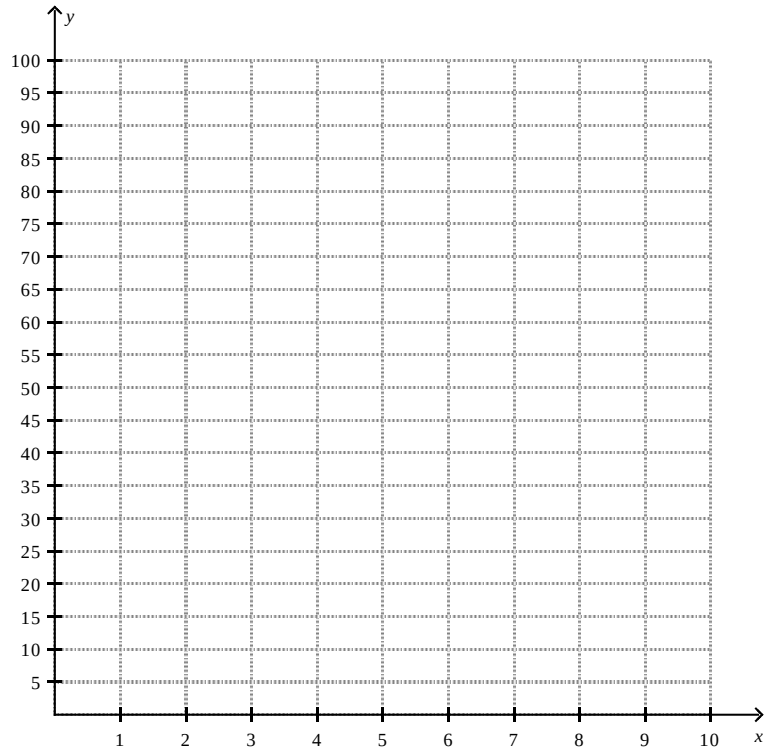
Unit 2 Linear Functions **Name**_____

Day 1 Homework **Date**_____ **Hour**_____

Part 1

Robert can solve 15 mathematics problems per hour. He starts solving at 7:00 pm. Marie can solve 20 math problems per hour and she starts at 8:00 pm. **At what time** will they have solved the same number of mathematics problems and how many will they have solved?

Solve this problem **graphically** and with **a table**.



Time (Hours)	Number of Solved Problems (Robert)	Number of Solved Problems (Marie)
0		xxxxxxxxx
1		
2		

1. At what time will they have solved the same number of mathematics problems? _____

2. How many will they have solved? _____

3. At what time will they have solved 180 mathematics problems? Robert: _____ Marie: _____

Part 2

The rate of change is constant in each table and graph. Find the rate of change. Explain what the rate of change means for each situation.

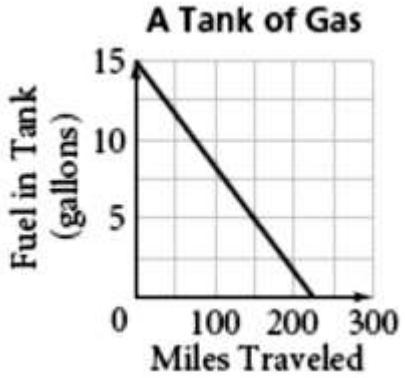
1.

Time (hours)	Temperature (°F)
1	−2
4	7
7	16
10	25
13	34

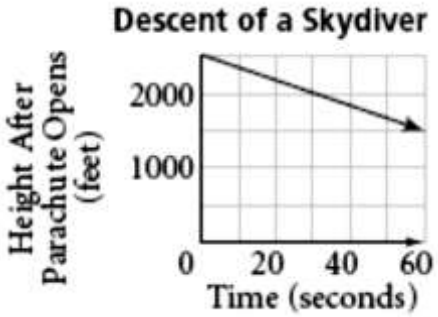
2.

People	Cost (dollars)
2	7.90
3	11.85
4	15.80
5	19.75
6	23.70

3.



4.



Find the rate of change for each situation.

5. A baby is 18in long at birth and 27 in long at ten months.

6. You drive 30 mi in one hour and 120 mi in four hours.