

Practice Set 3

1. A certain recipe calls for 3 cups of sugar for every one-half cup of flour. If a recipe calls for 2 cups of flour, how many cups of sugar are needed?

	/	/	/
.	.	.	.
	0	0	0
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	6	6	6
7	7	7	7
8	8	8	8
9	9	9	9

2. What is the least of three consecutive odd integers whose sum is 39?

	/	/	/
.	.	.	.
	0	0	0
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	6	6	6
7	7	7	7
8	8	8	8
9	9	9	9

3. If $2x = -10$, then $3x^2 - 2x - 2 =$

	/	/	/
.	.	.	.
	0	0	0
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	6	6	6
7	7	7	7
8	8	8	8
9	9	9	9

4. If a is an integer and $b = 7a + 13$, what is the greatest value of a for which b is less than 100?

.	7	7	.
.	.	.	.
	0	0	0
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	6	6	6
7	7	7	7
8	8	8	8
9	9	9	9

5. The cube of a positive number is equal to four times the number, what is the number?

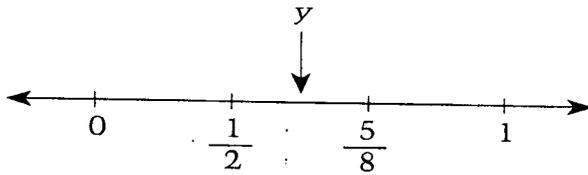
.	7	7	.
.	.	.	.
	0	0	0
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	6	6	6
7	7	7	7
8	8	8	8
9	9	9	9

6. The angles of a triangle are x , $2x + 10$, and $3x - 40$. What is the largest angle of this triangle?

.	7	7	.
.	.	.	.
	0	0	0
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	6	6	6
7	7	7	7
8	8	8	8
9	9	9	9

7.

Note: Figure not drawn to scale.



On the number line above, what is one possible value for y ?

.	/	/	.
.	.	.	.
	0	0	0
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	6	6	6
7	7	7	7
8	8	8	8
9	9	9	9

8. At a certain car rental company, the daily rental rate for a mid-size car is \$18.99. If the weekly rental rate for the same car is \$123.50, how much money, in dollars, is saved by renting this car by the week instead of renting daily for seven days? (Exclude the \$ sign when gridding your answer.)

.	/	/	.
.	.	.	.
	0	0	0
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	6	6	6
7	7	7	7
8	8	8	8
9	9	9	9

9. If $a + b = 6$, $b + c = -3$, and $a + c = 5$, what is the value of $a + b + c$?

.	/	/	.
.	.	.	.
	0	0	0
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	6	6	6
7	7	7	7
8	8	8	8
9	9	9	9

10. In the sequence of numbers x_1, x_2, x_3, x_4 , each number after the first is twice the preceding number. If $x_4 - x_1$ is 21, what is the value of x_2 ?

	/	/	
.	.	.	.
	0	0	0
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	6	6	6
7	7	7	7
8	8	8	8
9	9	9	9