

Practice Set 3

1. If $x \times y \times 14 = 7$, then $xy =$

.	/	/	.
	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. The average of positive numbers a , b , and c is what percent of their sum?

.	/	/	.
	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. At a birthday party, the guests learn that Samuel is z years old. If Rachel is 10 years older than Samuel, and the sum of their ages is 50, how old is Samuel?

.	/	/	.
	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 $4x + 7y = 8$, then $12x + 21y =$

.	/	/	.
	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. If $5x^2 = 10$, then $3x^6$ is equal to

.	/	/	.
	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. If $5x + 3y = 7$, and $2x - y = 3$, then $3x + 4y =$

.	/	/	.
	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. If one number exceeds another number by 15, and the larger number is 1.5 times the smaller number, what is the larger number?

.	/	/	.
	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. If $x^2 - y^2 = 16$ and $x - y = 8$, then $x + y =$

.	/	/	.
	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

9. One integer is five times another integer. If their sum is 60, what is the lesser of the two integers?

.	/	/	.
	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. The average of four non-zero positive integers is 150. If one of the integers is 200, and all the integers are different, what is the maximum value for any of the other three integers?

	/	/	
.	.	.	.
	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