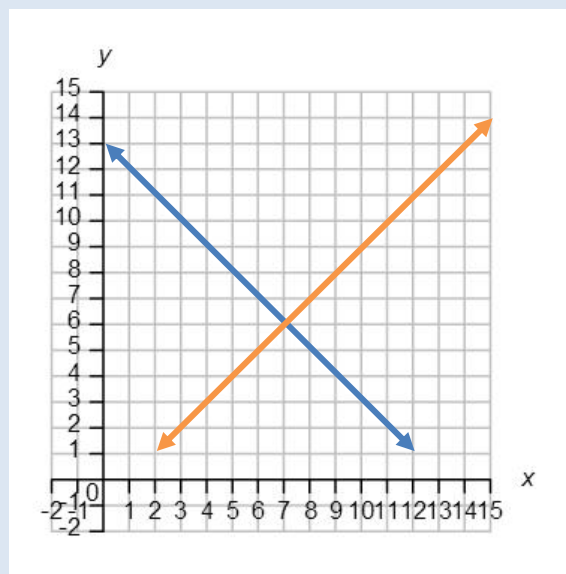


A.REI.6

Graphing Systems of Equations

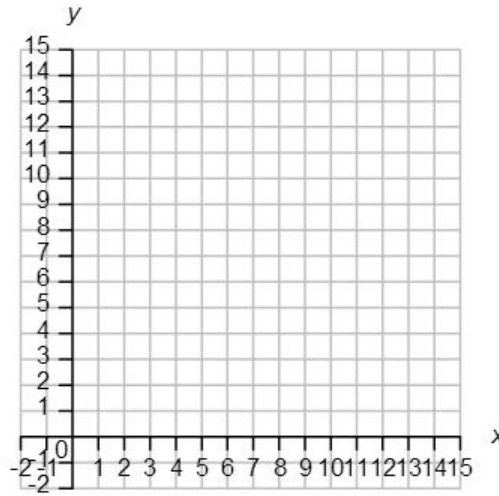


Reasoning with Equations & Inequalities

Solve systems of equations.

6. Solve systems of linear equations exactly and approximately (e.g., with graphs), focusing on pairs of linear equations in two variables.

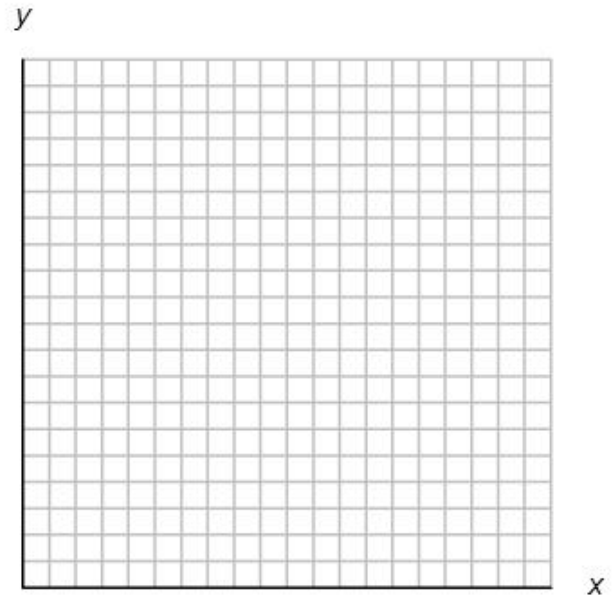
1. Find the value of two numbers if their sum is 12 and their difference is 2.



Answer:

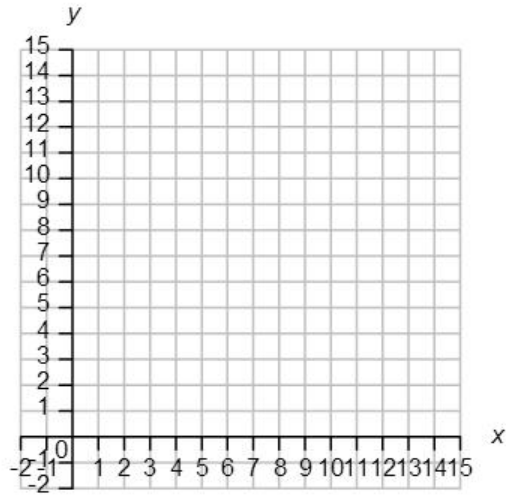
2. When do they cost the same? Gym Muscles charges a \$40 signup fee and then \$20 per month while Gym Slim does not charge a signup fee but charges \$30 per month.

Equations:
 Gym Muscles:
 Gym Slim:



Answer:

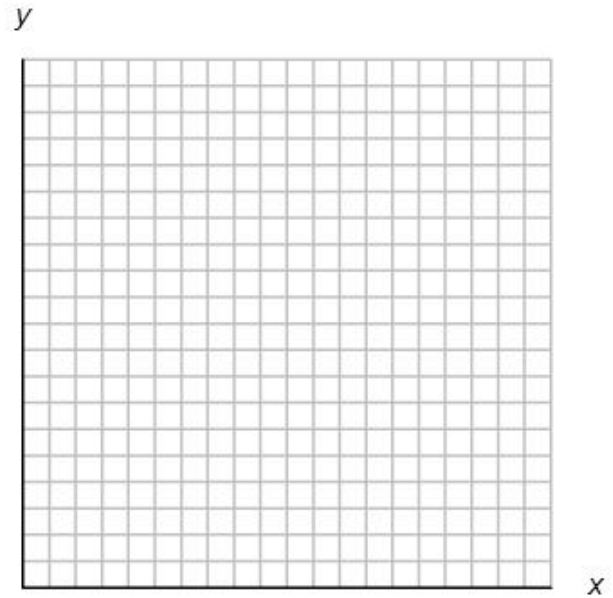
3. Find the value of two numbers if their sum is 10 and their difference is 6.



Answer:

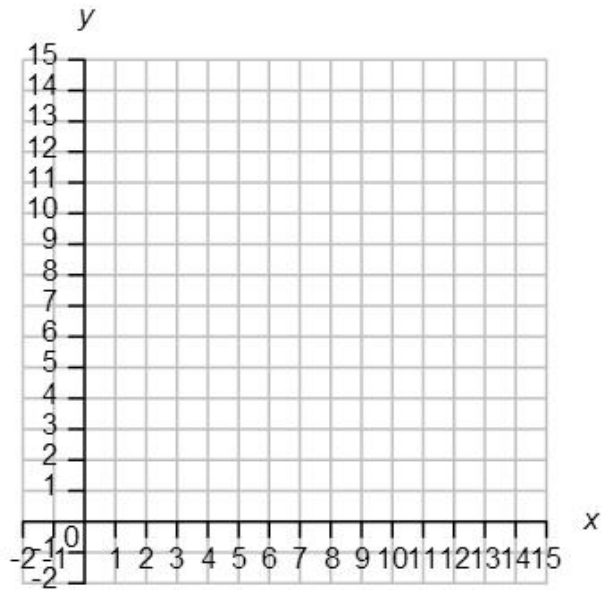
4. When do they cost the same? Gym Muscles charges a \$50 signup fee and then \$10 per month while Gym Slim does not charge a signup fee but charges \$15 per month.

Equations:
 Gym Muscles:
 Gym Slim:



Answer:

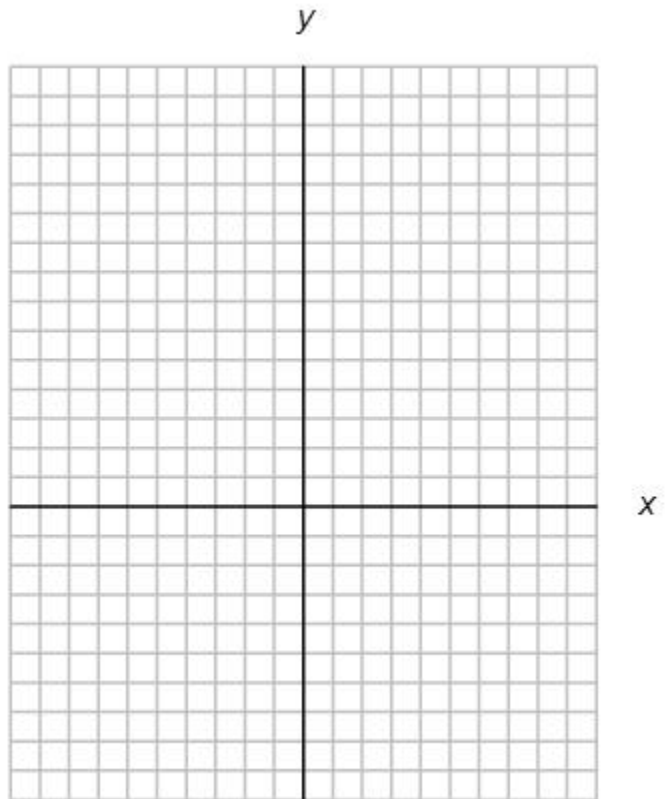
5. Solve the system of equations: $\begin{cases} x + y = 12 \\ x - y = 8 \end{cases}$



Answer:

6. Solve the system of equations: $\begin{cases} y = 2x + 2 \\ y = 3x - 3 \end{cases}$

Use tables if needed

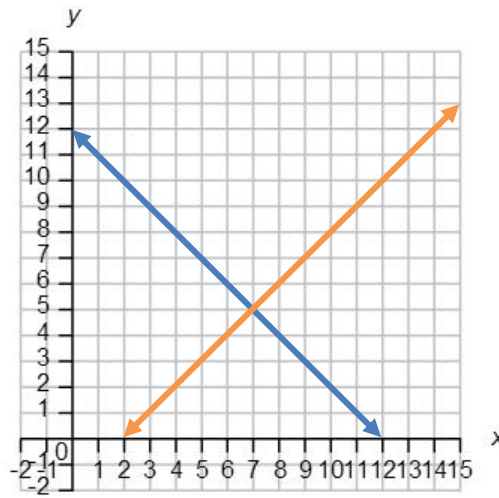


Answer:

1. Find the value of two numbers if their sum is 12 and their difference is 2.

$X + Y = 12$	
1	11
2	10
3	9
4	8
5	7
6	6

$X - Y = 2$	
10	8
9	7
8	6
7	5
6	4
5	3



Answer:

(7, 5)

2. When do they cost the same? Gym Muscles charges a \$40 signup fee and then \$20 per month while Gym Slim does not charge a signup fee but charges \$30 per month.

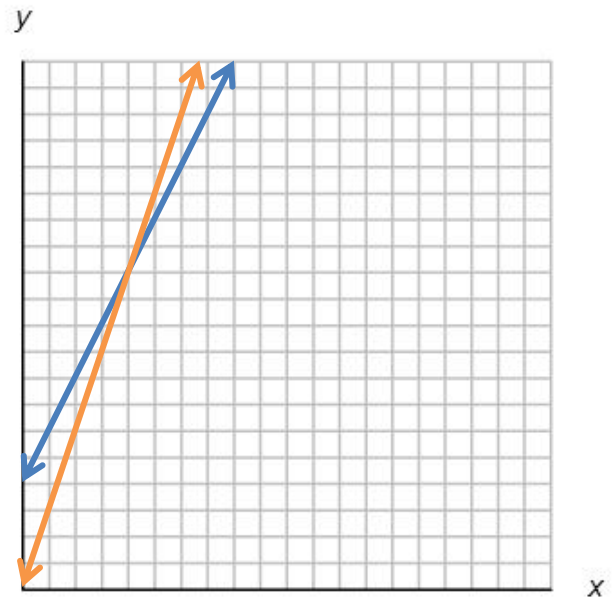
Equations:

Gym Muscles:
 $Y = 20x + 40$

Gym Slim:
 $Y = 30x$

$Y = 20x + 40$	
0	40
1	60
2	80
3	100
4	120
5	140

$Y = 30x$	
0	0
1	30
2	60
3	90
4	120
5	150



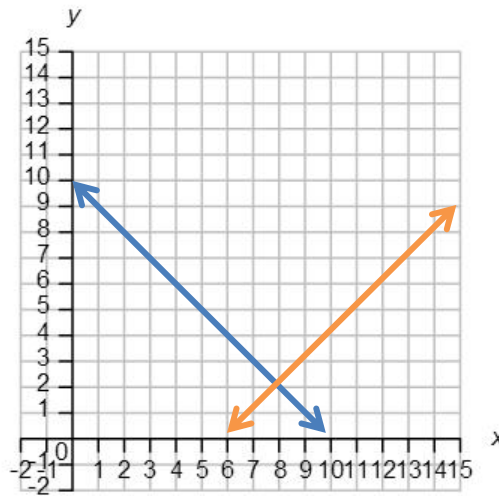
Answer:

(4, 120)

3. Find the value of two numbers if their sum is 10 and their difference is 6.

$X + Y = 10$	
2	8
3	7
4	6
5	5
6	4
7	3

$X - Y = 6$	
14	8
13	7
12	6
11	5
10	4
9	3



Answer:

(8, 2)

4. When do they cost the same? Gym Muscles charges a \$50 signup fee and then \$10 per month while Gym Slim does not charge a signup fee but charges \$15 per month.

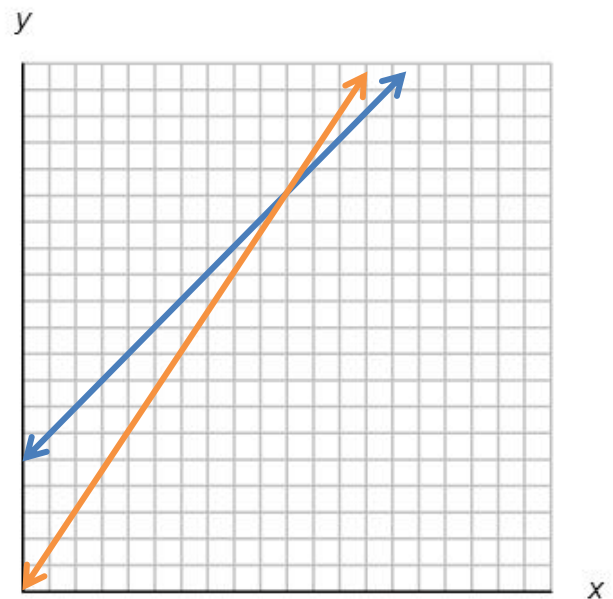
Equations:

Gym Muscles:
 $Y = 10x + 50$

Gym Slim:
 $y = 15x$

$Y = 10x + 50$	
0	50
1	60
2	70
3	80
4	90
5	100

$y = 15x$	
0	0
1	15
2	30
3	45
4	60
5	75



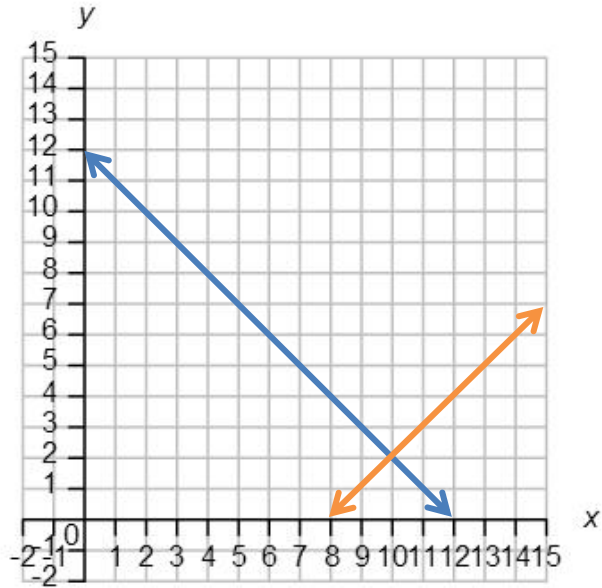
Answer:

(10, 150)

5. Solve the system of equations: $\begin{cases} x + y = 12 \\ x - y = 8 \end{cases}$

$X + Y = 12$	
4	8
5	7
6	6
7	5
8	4
9	3

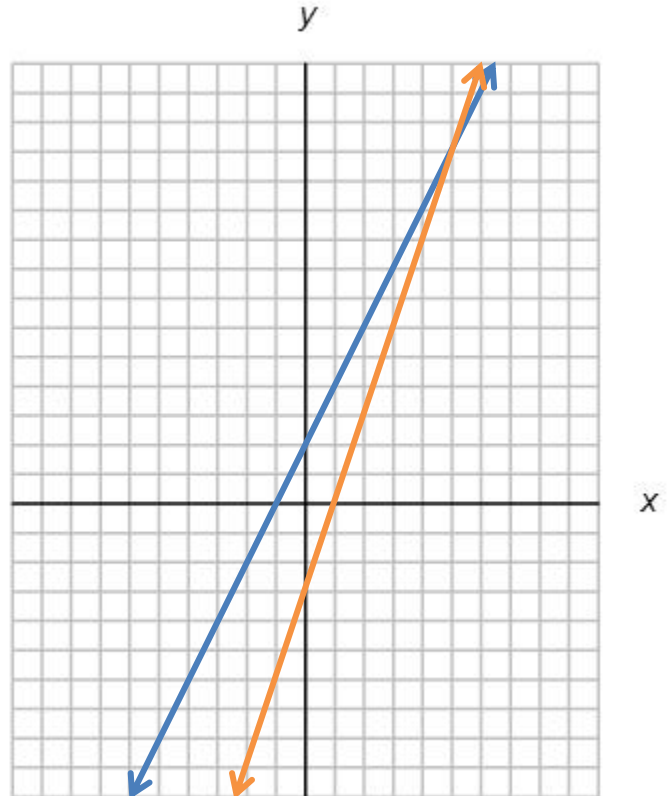
$X - Y = 8$	
8	0
9	1
10	2
11	3
12	4
13	5



Answer:
(10, 2)

6. Solve the system of equations: $\begin{cases} y = 2x + 2 \\ y = 3x - 3 \end{cases}$

Use tables if needed



Answer:
(5, 12)