

1. List out all of the divisors of 24.

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2. Find the prime factorization of 360.

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3. Find the least common multiple of 40 and 12.

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Perform the following operations.

4.  $\frac{4}{15} + \frac{b}{5}$

5.  $\frac{21a}{4} \div \frac{7a}{5}$

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Solve:

6.  $\frac{x}{12} + \frac{5}{6} = -\frac{3}{4}$

7.  $11x - \frac{2}{7} - 10x = -\frac{13}{14}$

8.  $\frac{3}{x-3} - \frac{1}{2} = 5$

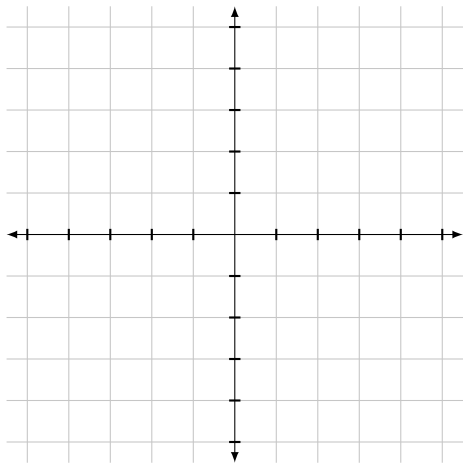
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9. Complete the table below to find solutions to the linear equation:  $5x - 4y = 20$

$x$	$y$	$(x, y)$
0		
	0	
2		

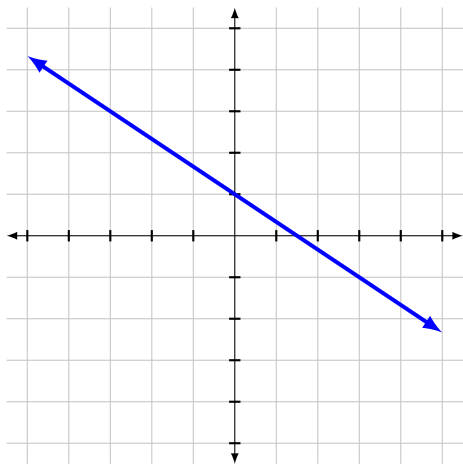
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10. Graph the equation  $y = \frac{3}{4}x - 3$



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11. Find the equation of the line graphed below.



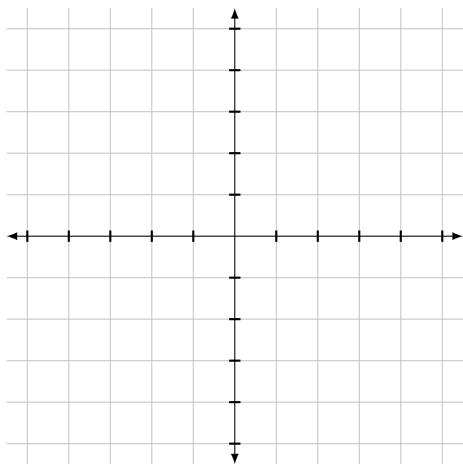
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12. Find the equation of the line with slope  $m = \frac{2}{5}$  that contains the point  $(5, -4)$

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13. Find the equation of the line that contains the points  $(1, 0)$  and  $(1, 4)$

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14. Solve the system by graphing  $\begin{cases} x + y = 6 \\ y = x + 4 \end{cases}$



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15. Solve the system by substitution  $\begin{cases} x - 3y = 4 \\ 2x + y = 3 \end{cases}$

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16. Determine the number of solutions to the system of equations.  $\begin{cases} 6x + 3y = 14 \\ 2x + y = -3 \end{cases}$

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17. The sum of two numbers is 50 and their difference is 16. Find the numbers.

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18. The sum of Jan's and Sue's age is 15. In 3 years, Jan will be twice as old as Sue. What are their present ages?

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19. A boat travels 54 km downstream in 3 hours, and it travels 70 km upstream in 5 hours. Find the speed of the boat in still water and the speed of the stream's current.

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20. A business shipped 110 packages one day. Customers are charged \$3.50 for each standard-delivery package and \$7.50 for each express-delivery package. Total shipping charges for the day were \$513. How many of each kind of package were shipped?