

Name: \_\_\_\_\_

Teacher: \_\_\_\_\_

Subject: \_\_\_\_\_

Period: \_\_\_\_\_ Date: \_\_\_\_\_

## Recalling Algebra I

You must show all work to receive credit.

No work = no credit.

1. Simplify this expression:

$$5x^2 - 2x - 3x^2 - 4x$$

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2. Solve this equation:

$$\frac{h}{8} = 7$$

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3. Evaluate this expression if  $a = 5$  and  $b = -1$

$$4(b^2 + a)$$

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4. Find the length of segment AB, given that A (8, -2) and B (2, 6)

5. Write the equation of the line with a slope of 3 passing through the point (0, 4)

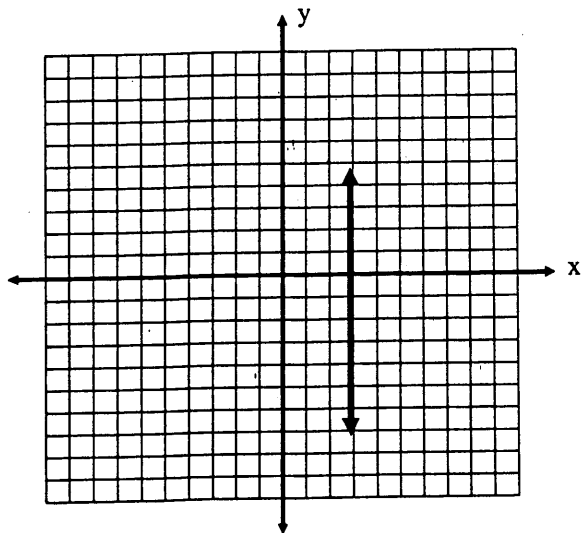
6. What is the product of 9 and -5

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7. Simplify this expression:  $(4u^2v^4)(3u^3v)$

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8. Find the slope of the line pictured below:



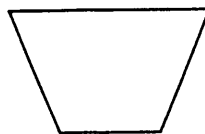
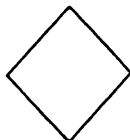
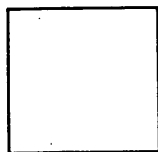
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9. What is the value of  $x$  in this equation:

$$3(x-2) - 4(2+3x) = x+10$$

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10. Circle the shape(s) that is not a parallelogram:



11. Simplify this expression:

$$\frac{6y^2}{14xy} \times \frac{7xy}{4x^2}$$

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12. The equation  $3y + 7x = 4$  best describes which of the following:

- Point
- Parabola
- Line
- Circle

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Explain your reasoning

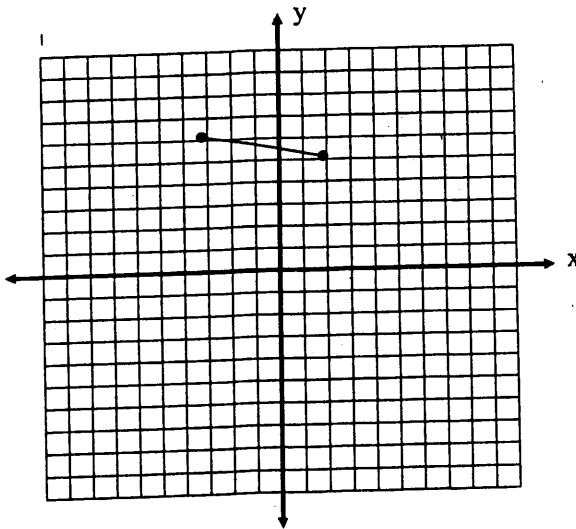
13. Simplify this expression:

$$\sqrt{5} \times \sqrt{10}$$

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14. Find the midpoint of this segment:  
The endpoints are at  $(-3, 6)$  and  $(2, 5)$

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15. Simplify this expression:

$$(4 - 5x)(3 + 25x)$$

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16. Solve this equation for  $x$ :

$$5 + (3^2 - 4) + 6 \times 3 = x$$

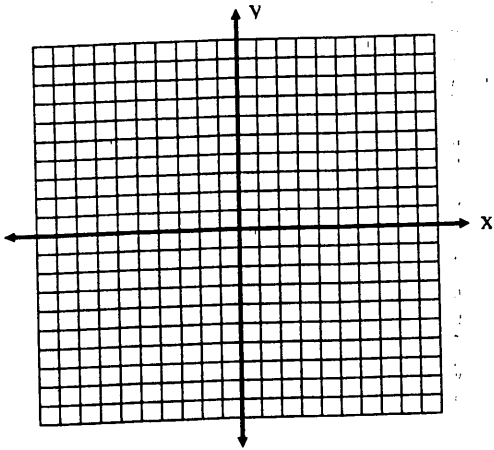
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17. Solve for  $x$  by factoring:

$$x^2 + 3x = 4$$

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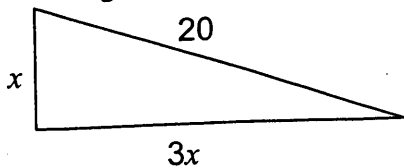
18. On this graph, draw and label point A at  $(-3, 2)$ :



19. Solve for  $x$ :  $|4 - 9 = x|$

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20. Between what two numbers is  $x$  in this right triangle:



21. Find the sum of 37.428 and 52.879. Round your answer to the nearest hundredth.

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22. Write the equation of the line perpendicular to the line  $y = -3x + 5$  and passing through the point  $(0, 4)$

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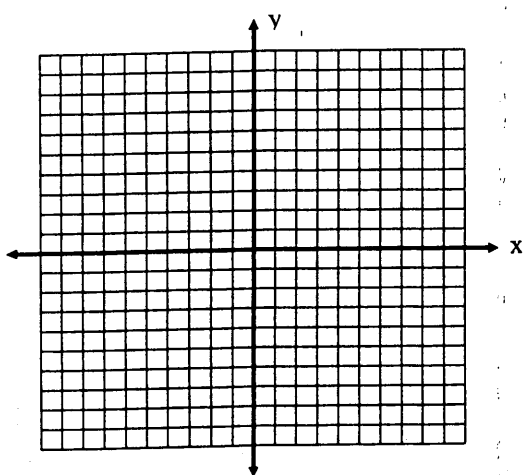
23. One leg of a right triangle is 8 cm and the hypotenuse is 17 cm. How long is the other leg?

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24. Write the equation of line AC, passing through A (2, 3) and C (4, 5)

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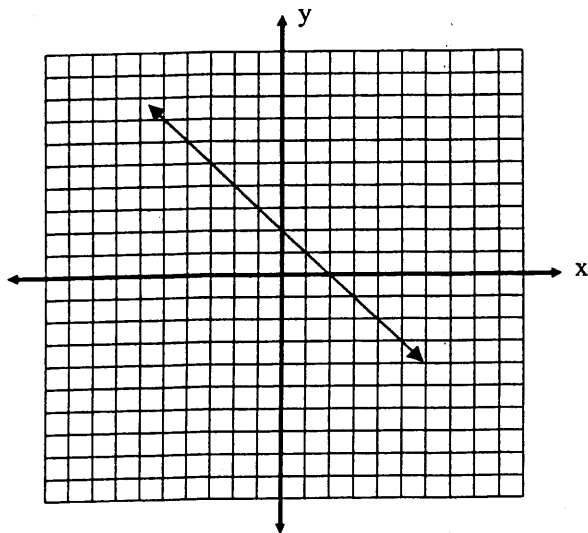
25. On this grid, graph the line  $y = \frac{2}{3}x - 2$



26. Find at least one solution of  $x^2 - 4x = 12$

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27. Write the equation of the line shown here:



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28. Solve this equation:

$$\sqrt{3} + \sqrt{27} = x$$

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29. Solve for  $d$  where  $3d - 35 = 9d - 59$

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30. Solve this system of equations:

$$2x + y = 15$$

$$x + 2y = 15$$

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