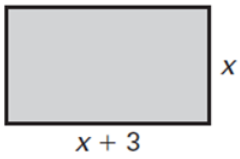
Algebra 1
HW #12 Area Applications

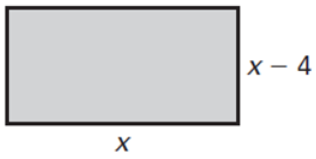
Name:_____

Find the value of *x*.

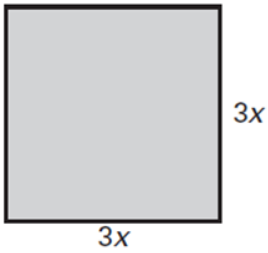
1. Area of the rectangle = 28



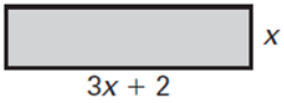
2. Area of the rectangle = 32



3. Area of the square = 81

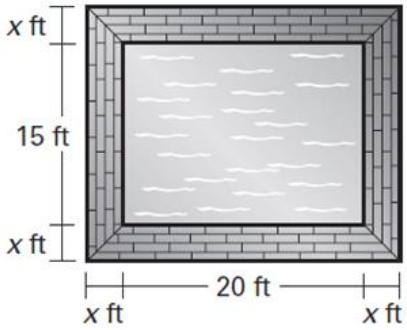


4. Area of the rectangle = 16



5. **Hopscotch** The community playground has a hopscotch pad that is 8 feet longer than it is wide. The total area of the pad is 48 square feet. What are the dimensions of the hopscotch pad?

6.
Pool A pool deck of uniform width is going to be built around a rectangular pool that is 20 feet long and 15 feet wide. After the deck is built, a total of 414 square feet will be occupied. How wide is the deck encompassing the pool?



Algebra 1 Name:_____
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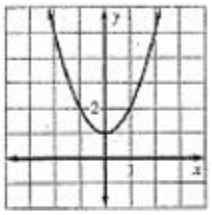
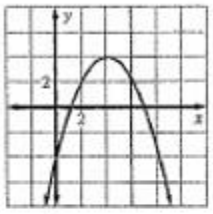
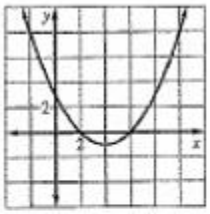
Match each of the following equations with its correct graph.

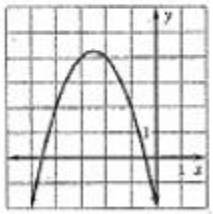
7. $y = \frac{1}{4}x^2 - 2x + 3$ 8. $y = x^2 + 1$ 9. $y = -\frac{1}{2}x^2 + 4x - 4$

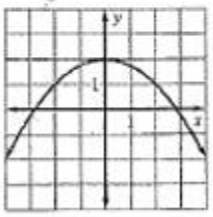
10. $y = -x^2 + 5x - 2$ 11. $y = -x^2 - 5x - 2$ 12. $y = -\frac{1}{4}x^2 + 2$

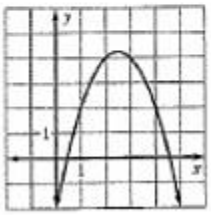
A. 

B. 

C. 

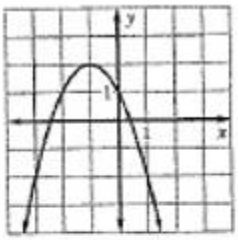
D. 

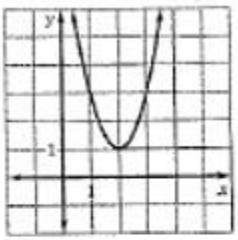
E. 

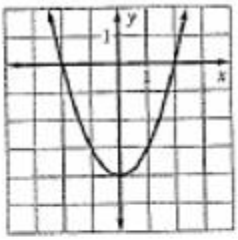
F. 

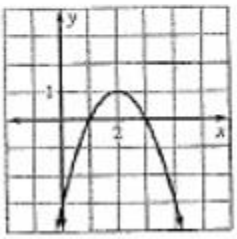
13. $y = 2(x-2)^2 + 1$ 14. $y = -(x-3)(x-1)$ 15. $y = -(x+1)^2 + 2$

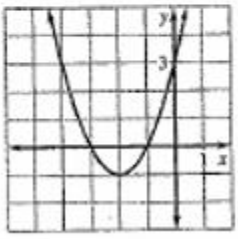
16. $y = (x+2)(x-2)$ 17. $y = -2(x-4)^2 + 8$ 18. $y = (x+3)(x+1)$

A. 

B. 

C. 

D. 

E. 

F.