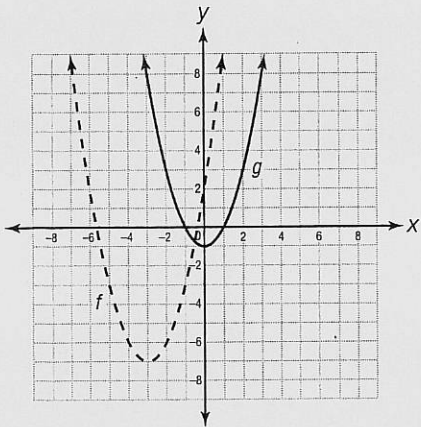


### 3 LESSON PRACTICE

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#### Answer Key

1. C DOK1
2. C DOK2
3. C DOK2
4. A DOK2
5. B DOK1
6. D DOK2
- 7.



DOK2

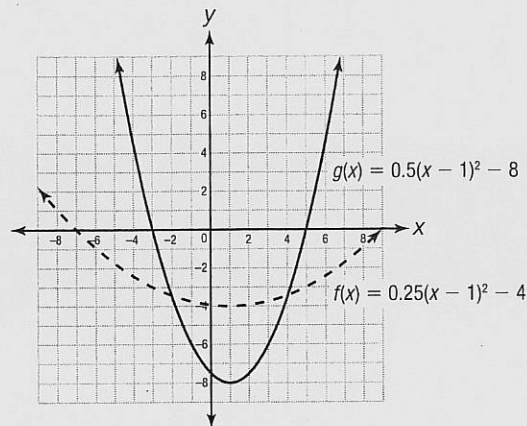
8. C, E DOK2
9. Sample answer: The vertex form of a quadratic function is the result of three transformations of the parent function and shows how every quadratic function can be obtained starting from the parent function. First, stretch or shrink the parent function by the factor  $a$ , reflecting the function if  $a$  is negative. Then, perform a horizontal translation of  $h$  units to the right (moving left if  $h$  is negative) and a vertical translation of  $k$  units up (moving down if  $k$  is negative). DOK2

10.

Function	Units Left	Units Right	Units Up	Units Down
$g(x) = (x - 2)^2$		1	4	
$h(x) = (x + 4)^2 + 3$	5		7	
$p(x) = x^2$	1		4	
$q(x) = (x - 1)^2 - 5$				1

DOK2

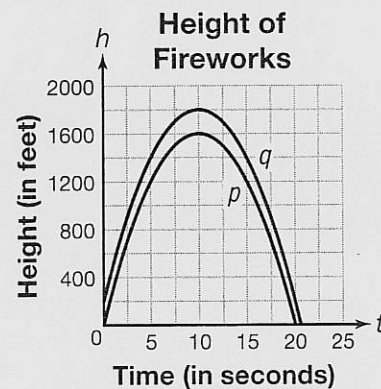
11.



DOK2

12. Part A Sample answer: Function  $q$  is  $p$  with a vertical translation of 200 feet upward. The function  $q$  represents fireworks that achieve a maximum height that is 200 feet higher than the fireworks associated with  $p$ .

Part B



- Part C Site 1 has an elevation of 0 feet because  $p(0) = 0$ . Site 2 has an elevation of 200 feet because  $q(0) = 200$ . DOK3