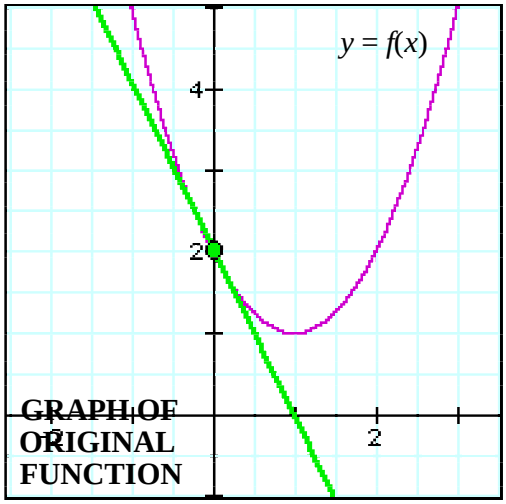
Problems for Gateway #2: Derivative as Slope of Tangent Line

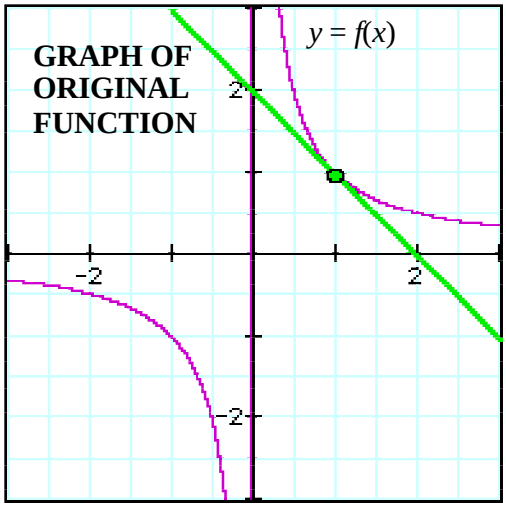
1. The graph below shows the **ORIGINAL FUNCTION** $y = f(x)$.



The value that best approximates the **DERIVATIVE** $f'(0)$ is:

(a) -2 **(b)** $1/2$
(c) 2 **(d)** 1
(e) $-1/2$

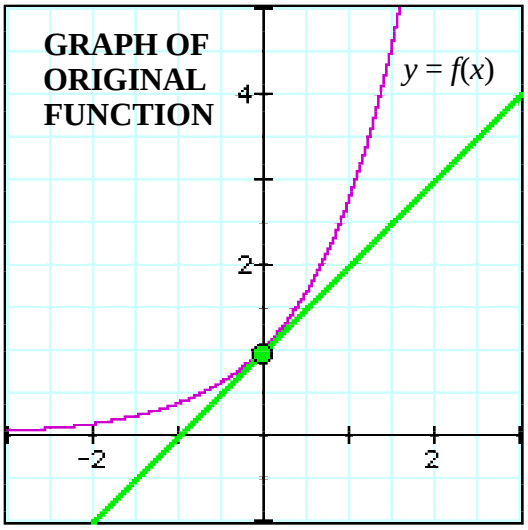
2. The graph below shows the **ORIGINAL FUNCTION** $y = f(x)$.



The value that best approximates the **DERIVATIVE** $f'(1)$ is:

(a) 1 **(b)** 4
(c) 2 **(d)** -1
(e) 0

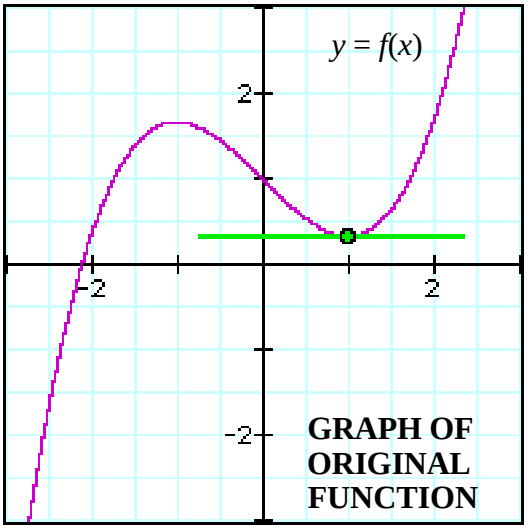
3. The graph below shows the **ORIGINAL FUNCTION** $y = f(x)$.



The value that best approximates the **DERIVATIVE** $f'(0)$ is:

(a) 3
(b) 4
(c) 2
(d) -1
(e) 1

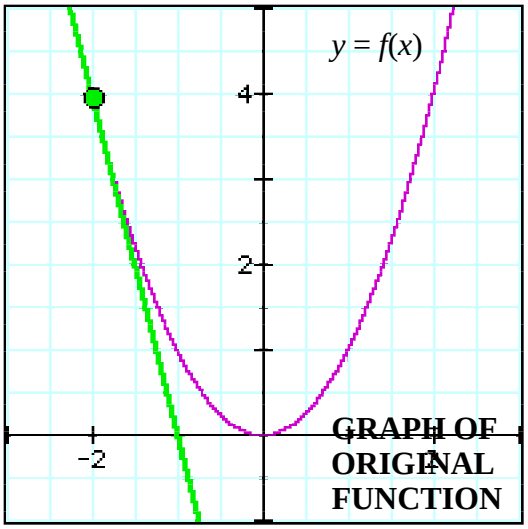
4. The graph below shows the **ORIGINAL FUNCTION** $y = f(x)$.



The value that best approximates the **DERIVATIVE** $f'(1)$ is:

(a) 3
(b) 0
(c) 2
(d) 1
(e) 2.3

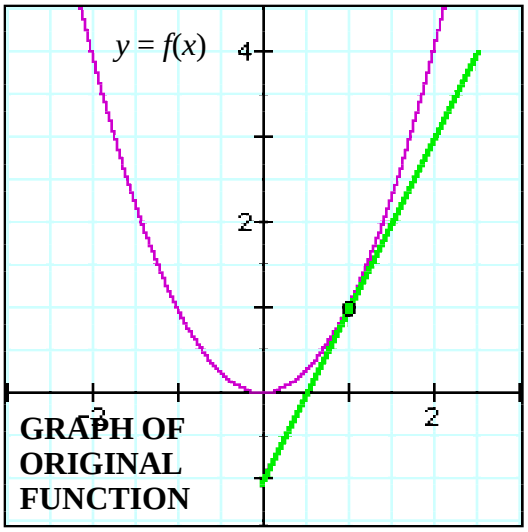
5. The graph below shows the **ORIGINAL FUNCTION** $y = f(x)$.



The value that best approximates the **DERIVATIVE** $f'(-2)$ is:

(a) -3 **(b)** 4
(c) 2 **(d)** -2
(e) -4

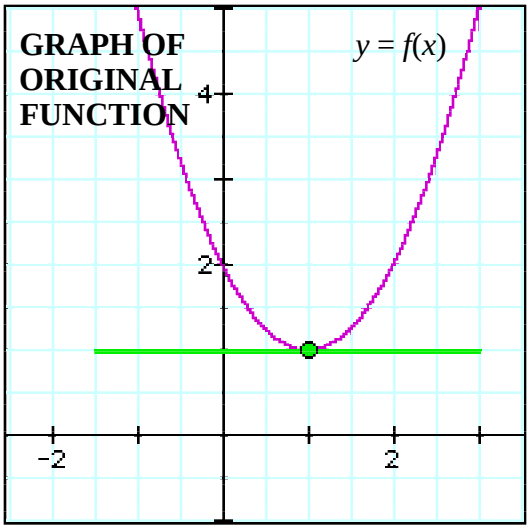
6. The graph below shows the **ORIGINAL FUNCTION** $y = f(x)$.



The value that best approximates the **DERIVATIVE** $f'(1)$ is:

(a) 3 **(b)** 4
(c) 2 **(d)** 1
(e) None of the above.

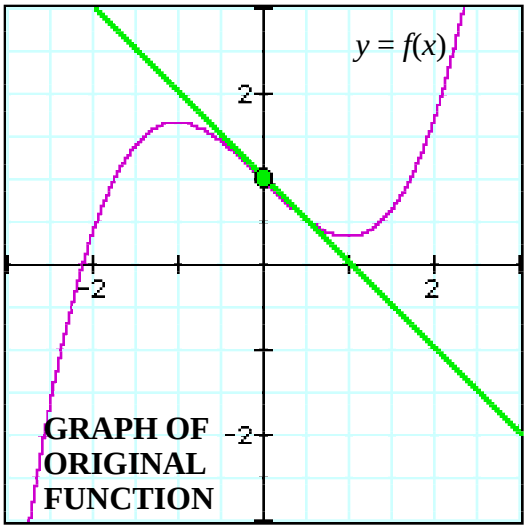
7. The graph below shows the **ORIGINAL FUNCTION** $y = f(x)$.



The value that best approximates the **DERIVATIVE** $f'(1)$ is:

(a) 3 **(b)** 0
(c) 2 **(d)** 1
(e) None of the above.

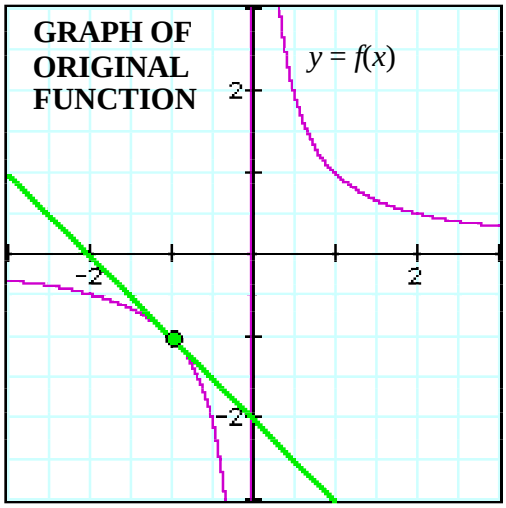
8. The graph below shows the **ORIGINAL FUNCTION** $y = f(x)$.



The value that best approximates the **DERIVATIVE** $f'(0)$ is:

(a) -2 **(b)** 3
(c) 2 **(d)** 1
(e) -1

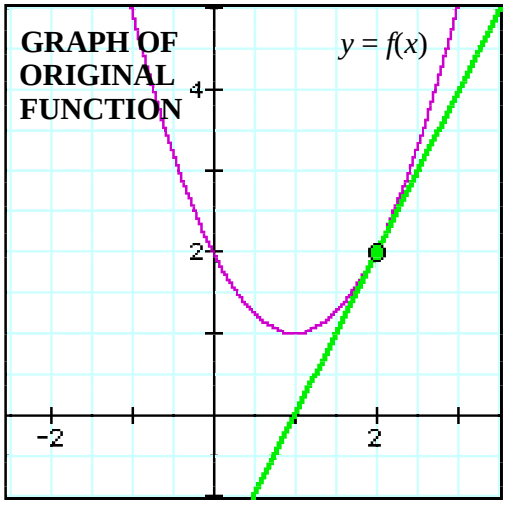
9. The graph below shows the **ORIGINAL FUNCTION** $y = f(x)$.



The value that best approximates the **DERIVATIVE** $f'(-1)$ is:

(a) -1 **(b)** -2
(c) 2 **(d)** 1
(e) 3

10. The graph below shows the **ORIGINAL FUNCTION** $y = f(x)$.



The value that best approximates the **DERIVATIVE** $f'(2)$ is:

(a) 3 **(b)** 4
(c) 2 **(d)** 1
(e) None of the above.

ANSWERS:

1.	A	**2.**	D	**3.**	E	**4.**	B
5.	E	**6.**	C	**7.**	B	**8.**	E
9.	A	**10.**	C				