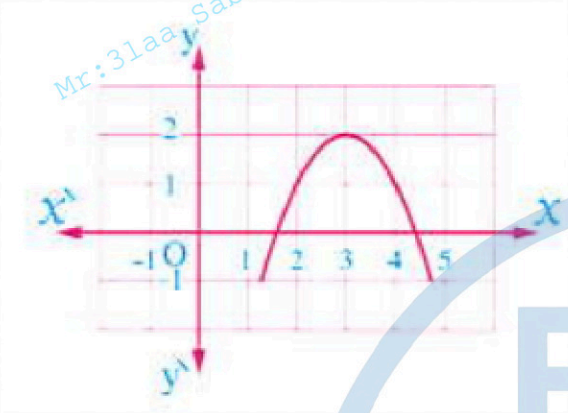
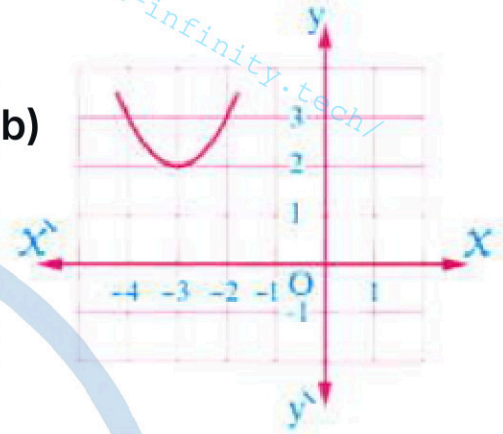
Function Graph

1. If $f(x) = -(x-3)^2 + 2$, then the graph that represents the function is .....

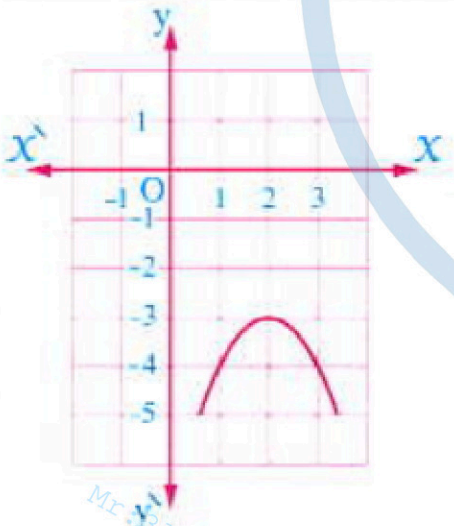
(a)



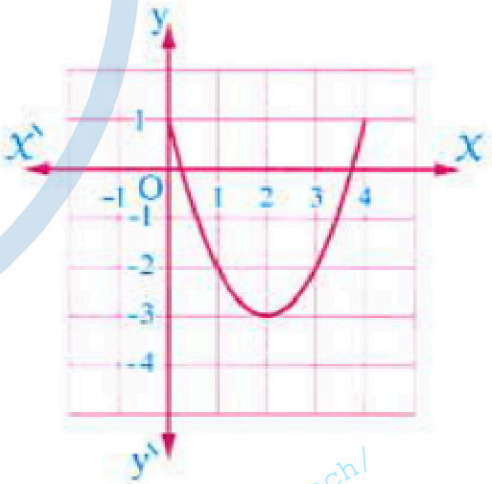
(b)



(c)



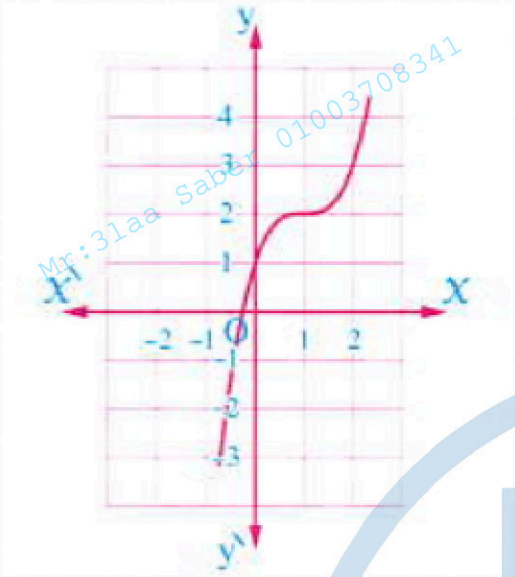
(d)



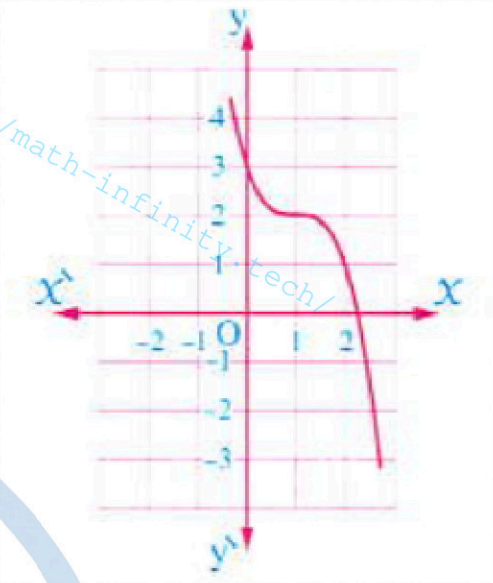
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2. If $f(x) = 2 - (x-1)^3$, then the graph that represents thefunction is

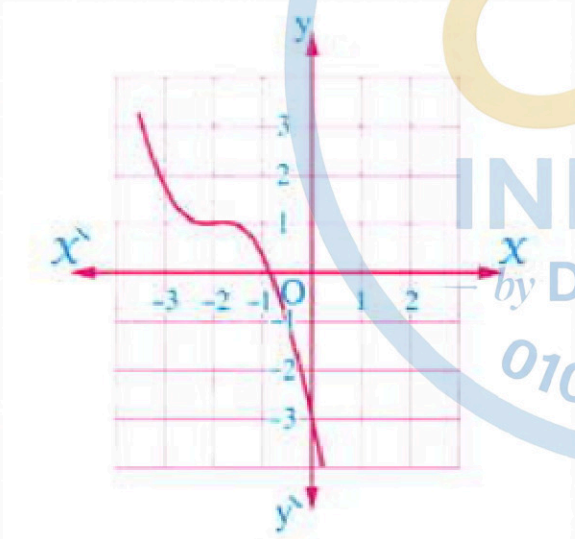
(a)



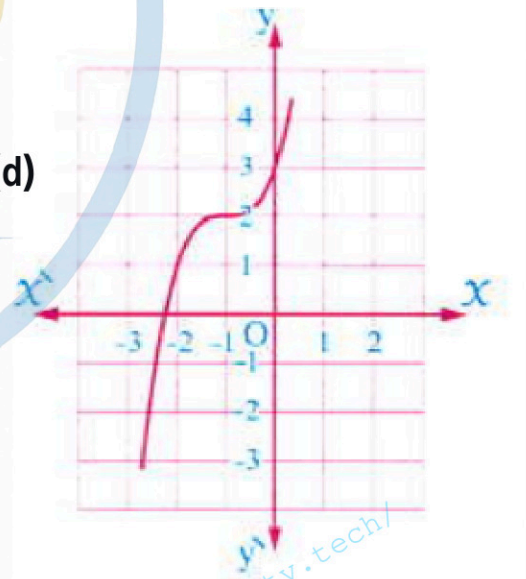
(b)



(c)



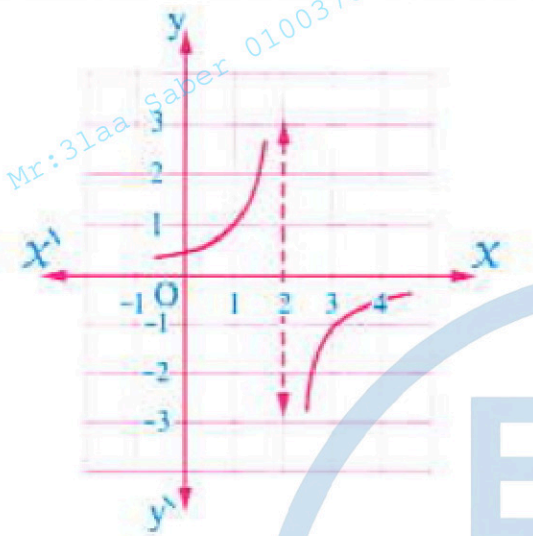
(d)



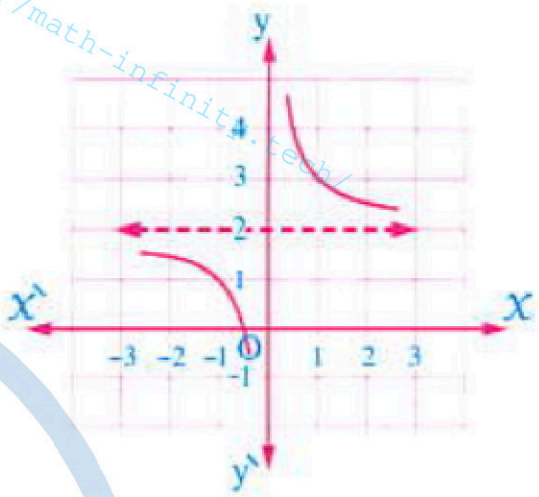
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3. If $f(x) = \frac{1}{x-2}$, then the graph that represents the function f is

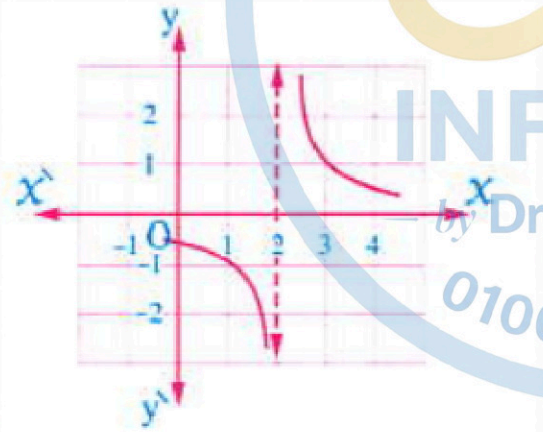
(a)



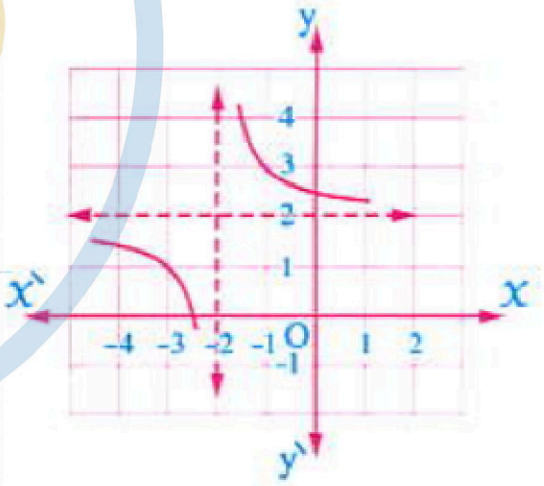
(b)



(c)



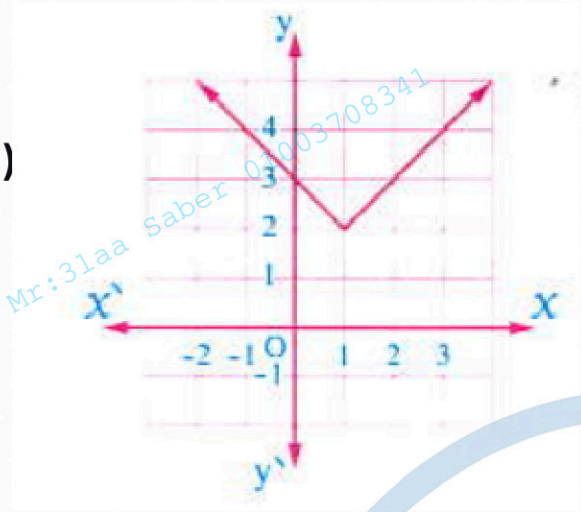
(d)



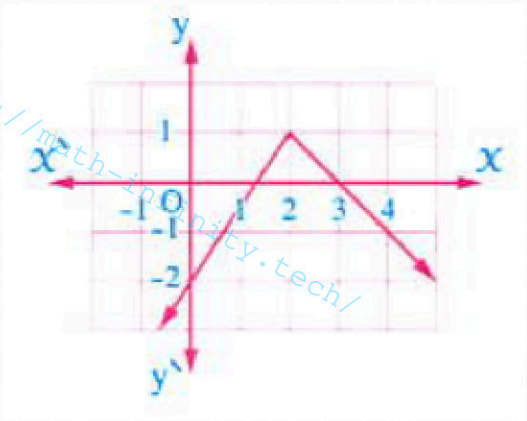
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4. If $f(x) = 1 - |x - 2|$ then the figure which represents thefunction is

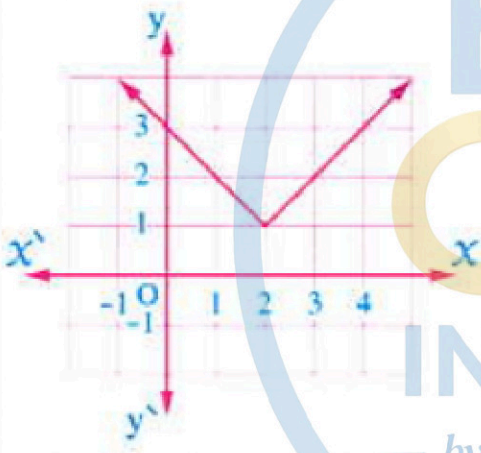
(a)



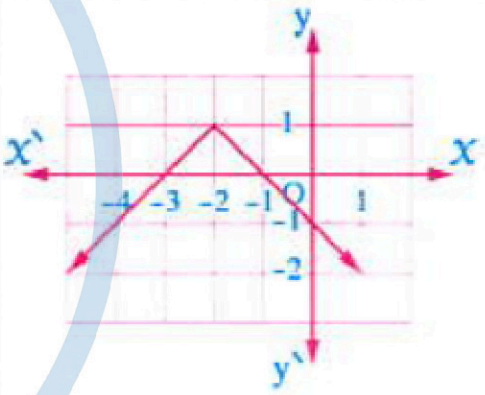
(b)



(c)



(d)



5. If the curve of the function $g: g(x) = x^2$ is translated two units in the positive directions of the two axes, then the function that represents this translation is

(a) $f(X) = (X + 2)^2 + 2$

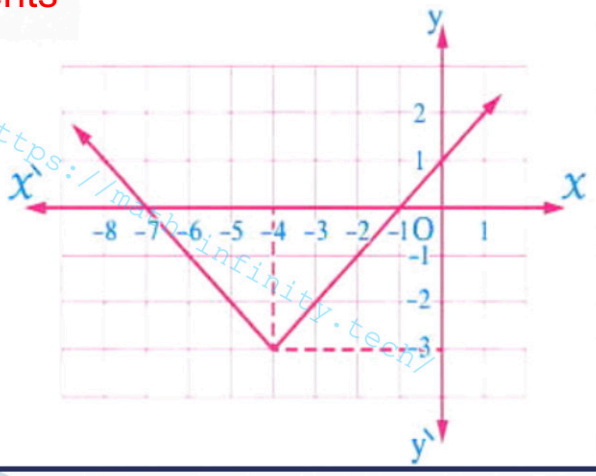
(b) $f(X) = (X + 2)^2 - 2$

(c) $f(X) = (X - 2)^2 - 2$

(d) $f(X) = (X - 2)^2 + 2$

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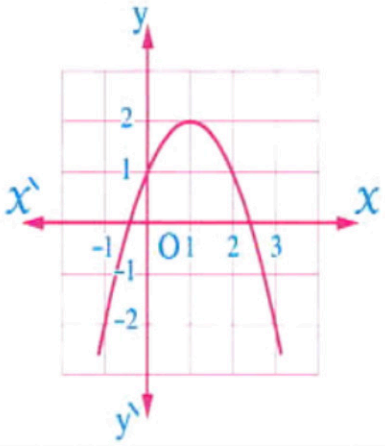
6. which of the following function rules represents the curve in the given figure is



(a) $f(X) = |X - 4| - 3$ (b) $f(X) = |X - 4| + 3$

(c) $f(X) = |X + 4| - 3$ (d) $f(X) = |X + 4| + 3$

7. which of the following function rules represents the curve in the given figure is



(a) $f(X) = (X - 1)^2 + 2$ (b) $f(X) = 1 - (X - 2)^2$

(c) $f(X) = 2 - (X - 1)^2$ (d) $f(X) = (X + 1)^2 - 2$

8. The point of the vertex of the curve of the function f :

$f(x) = (2 - x)^2 + 3$ is

(a) (2,3)

(b) (2,-3)

(c) (-2,3)

(d) (-2,-3)

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9. The symmetric point of the function $f(x) = x^3 - 2$ is

(a) (0,2)

(b) (0,-2)

(c) (2,0)

(d) (-2,0)

---

10. The symmetric point (vertex) of the function $f : f(x) = 3 - (x+2)^2$ is

(a) (3,2)

(b) (2,3)

(c) (-2,3)

(d) (-2,-3)

---

11. The point of symmetry of the curve of the function f : $f(x) = \frac{1}{x-3} + 4$ is

(a) (3,-4)

(b) (-3,-4)

(c) (3,4)

(d) (-3,4)

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12. The symmetric point of the function $f(x) = \frac{x+1}{x}$ is

(a) (1,0)

(b) (0,1)

(c) (0,0)

(d) (1,-1)

---

13. If f is a function where $f(x) = \frac{1}{x}$, then the symmetric point of the function $g : g(x) = f(x+1)$ is

(a) (1,0)

(b) (0,1)

(c) (-1,0)

(d) (-1,1)

---

14. If $f(x) = \frac{a}{x-b} + c$ where a, b, c $\in \mathbb{R}$ has the symmetric point (3,3), then a^{b+c} =

(a) a^9

(b) 1

(c) a^6

(d) -1

---

15. The vertex of the curve of the function $f : f(x) = |x+3| - 2$ is

(a) (3,2)

(b) (-3,-2)

(c) (-3,2)

(d) (3,-2)

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16. If f is a function where $f(x) = \frac{1}{x}$, then the symmetric point (center of symmetry) of the function $g : g(x) = f(x+1)$ is

(a) (1,0)

(b) (0,1)

(c) (-1,0)

(d) (-1,1)

---

17. If $f(x) = \frac{a}{x-b} + c$ where a, b, c $\in \mathbb{R}$ has the symmetric point (3,3) then a^{b+c} =

(a) a^9

(b) 1

(c) a^6

(d) -1

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18. The curve of the function $f : f(x) = |x - 2|$ is symmetric about the straight line

(a) $x = 2$
(b) $x = -2$
(c) $y = 2$
(d) $y = -2$

---

19. The axis of symmetry of the function $f : f(x) = x^2 - 1$ is the straight line

(a) $x = 1$
(b) $x = 0$
(c) $y = 1$
(d) $y = 0$

---

20. If $f(x) = \frac{1}{|x|}$, then the equation of the axis of symmetry of the curve of the function f is

(a) $y = 0$
(b) $x = 0$
(c) $y = x$
(d) $y = -x$

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21. If $y = f(x)$ is a real function, then its image by translation 3units vertically upwards is $g(x) = \ldots$

(a) $f(x-3)$
(b) $f(x+3)$
(c) $f(x)+3$
(d) $f(x)-3$

---

22. If the curve $y = f(x)$ represents a real function then its image by translation 5 units vertically downward is the same as $g(x) = \ldots$

(a) $f(x-5)$
(b) $f(x+5)$
(c) $f(x)+5$
(d) $f(x)-5$

---

23. The curve of the function $g : g(x) = x^2 + 4$ is the same curve of the function $f : f(x) = x^2$ by a translation of magnitude 4 units in the direction of

(a) $\overrightarrow{OX}$ (negative)
(b) $\overrightarrow{OX}$ (positive)
(c) $\overrightarrow{Oy}$ (negative)
(d) $\overrightarrow{Oy}$ (positive)

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24. The curve of the function g where $g(x) = |x| - 2$ is the same as the curve of the function $f : f(x) = |x|$ by translation two units in direction of

(a) $\overrightarrow{OX}$ (negative)

(b) $\overrightarrow{OX}$ (positive)

(c) $\overrightarrow{Oy}$ (negative)

(d) $\overrightarrow{Oy}$ (positive)

---

25. If f is a real function whose domain is $[-3, 4]$, then the domain of $g : g(x) = f(x) + 2$ is

(a) $[-3, 4]$

(b) $[-1, 6]$

(c) $[-5, 2]$

(d) $\mathbb{R}$

---

26. The curve of the function $g : g(x) = \frac{1}{|x|} + 2$ is the same as the curve of the function $f : f(x) = \frac{1}{|x|}$ by translation two units in direction of

(a) $\overrightarrow{OX}$ (negative)

(b) $\overrightarrow{OX}$ (positive)

(c) $\overrightarrow{Oy}$ (negative)

(d) $\overrightarrow{Oy}$ (positive)

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27. The curve of the function $g : g(x) = |x + 3|$ is the same curve of the function $f : f(x) = |x|$ by a translation of magnitude 3 units in the direction of

(a) $\overrightarrow{OX}$ (negative)
(b) $\overrightarrow{OX}$ (positive)
(c) $\overrightarrow{Oy}$ (negative)
(d) $\overrightarrow{Oy}$ (positive)

---

28. If $y = f(x)$ is a real function, then its image by translation 4 units to the left is $g(x) = \ldots$

(a) $f(x - 4)$
(b) $f(x + 4)$
(c) $f(x) + 4$
(d) $f(x) - 4$

---

29. If f is a real function whose domain is $[-2, 3]$, then the domain of $g : g(x) = f(x - 2)$ is

(a) $[-2, 3]$
(b) $[-4, 1]$
(c) $[0, 5]$
(d) $\mathbb{R}$

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30. If $f(x) = -x^2$ moves 3 units to the right and 2 units down, then resulted curve is $g(x)$, then $g(4) = \ldots$

(a) -3

(b) -16

(c) 16

(d) -7

---

31. If the curve $f(x) = -x^3$ moves 4 units to the left and 2 units upwards to become the curve $g(x)$, then $g(-2) = \ldots$

(a) -218

(b) 214

(c) 6

(d) -6

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