Year 9 Class 9 questions

Q1

Which equations, when graphed, give a parabola?

- ☐ $y = 7 - 2x^2$
- ☐ $y = -\frac{5}{x^2}$
- ☐ $y = 2x - 7$
- ☐ $y = -\frac{3}{x^2}$

Q2

Complete the table of values.

$y = 2x^2 - 1$

x	-2	-1	0	1	2
y					

Q3

Complete the table of values.

$y = x^2 + x + 1$

x	-2	-1	0	1	2
y					

Q4

Complete the table of values.

$y = x^2 - 2x + 1$

x	-2	-1	0	1	2
y					

Q5

Complete the table of values.

$y = x^2 - 3x - 2$

x	-2	-1	0	1	2
y					

Q6

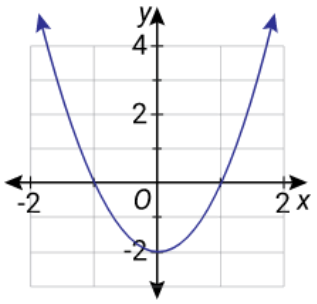
Complete the table of values.

$y = 7 - x^2$

x	-2	-1	0	1	2
y					

Q7

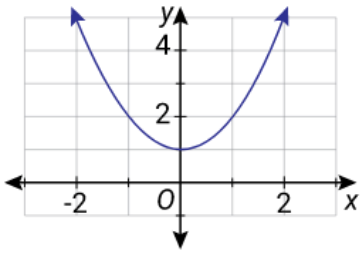
Which equation matches the graph?



- ○ $y = -2x^2$
- ○ $y = 2 - x^2$
- ○ $y = 2x^2 - 2$
- ○ $y = \frac{1}{2}x^2$

Q8

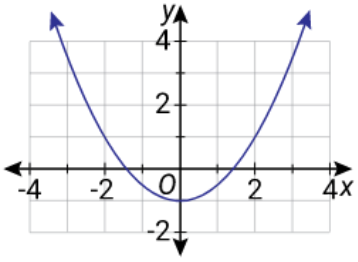
Which equation matches the graph?



- ○ $y = 2x^2 - 1$
- ○ $y = x^2 + 1$
- ○ $y = 1 - x^2$
- ○ $y = 2x^2$

Q9

Which equation matches the graph?



- ○ $y = 2x^2 - 1$
- ○ $y = \frac{1}{2}x^2 - 1$
- ○ $y = 1 - x^2$
- ○ $y = -\frac{1}{2}x^2$

Q10

Choose all the points which lie on the parabola $y = x^2 - 2x - 3$.

☐ (0, -3) ☐ (3, 0) ☐ (4, 5) ☐ (-2, 3)

Q11

Choose all the points which lie on the parabola $y = x^2 + 3x - 1$.

☐ (-4, 3) ☐ (2, 6) ☐ (1, 3) ☐ (-2, -3)

Q12

Choose all the points which lie on the parabola $y = x^2 - 5$.

☐ (0, -5) ☐ (2, -1) ☐ (-2, 4) ☐ (-3, 5)

Q13

Choose all the points which lie on the parabola $y = 4 - x^2$.

☐ (-3, -5) ☐ (1, 4) ☐ (0, -4) ☐ (2, 0)

Q14

Choose all the points which lie on the parabola $y = x^2 - x - 2$.

☐ (-2, 7) ☐ (-1, 0) ☐ (0, -2) ☐ (3, 4)

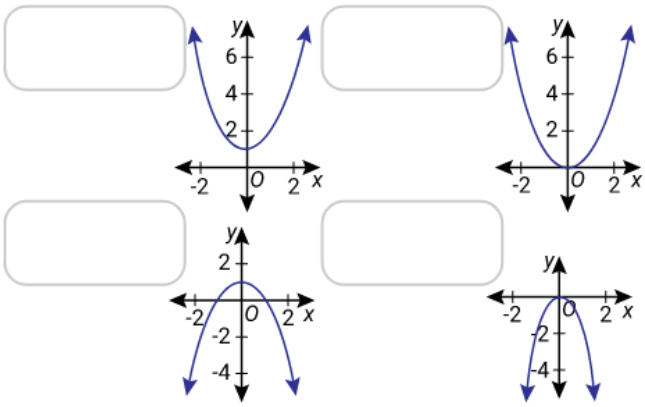
Q15

Choose all the points which lie on the parabola $y = 2x^2 - x$.

☐ (0, 0) ☐ (1, 2) ☐ (-1, 3) ☐ (3, 15)

Q16

Match the graphs with their equations.

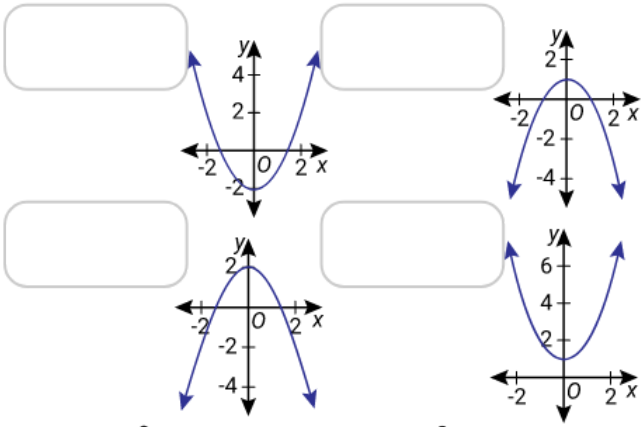


$y = x^2 + 1$ $y = -x^2 + 1$

$y = -2x^2$ $y = x^2$

Q17

Match the graphs with their equations.

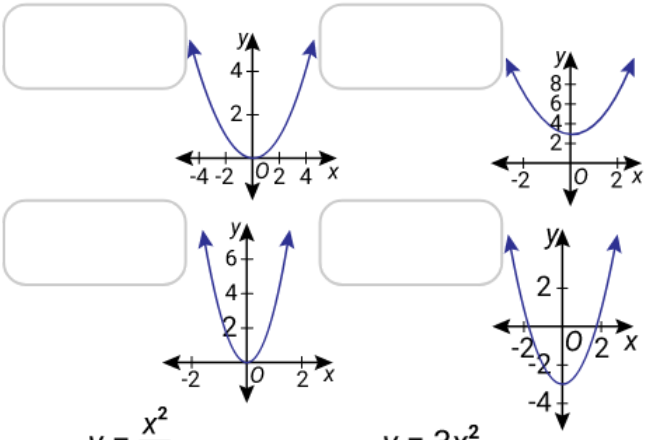


$y = -x^2 + 2$ $y = x^2 - 2$

$y = -x^2 + 1$ $y = x^2 + 1$

Q18

Match the graphs with their equations.

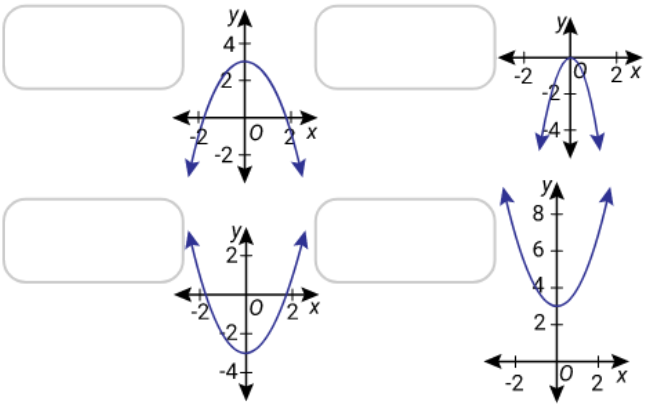


$y = \frac{x^2}{4}$ $y = 3x^2$

$y = x^2 - 3$ $y = x^2 + 3$

Q19

Match the graphs with their equations.

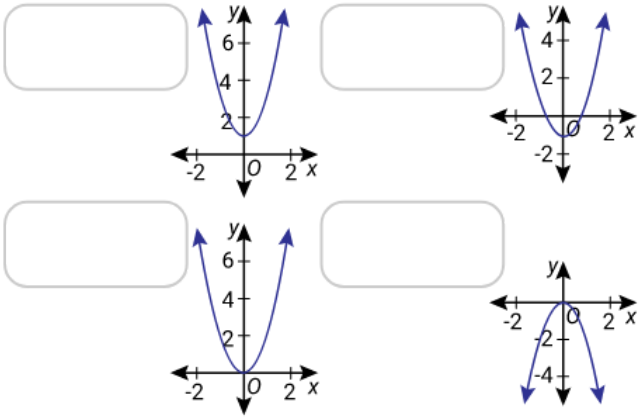


$y = -3x^2$ $y = x^2 - 3$

$y = -x^2 + 3$ $y = x^2 + 3$

Q20

Match the graphs with their equations.

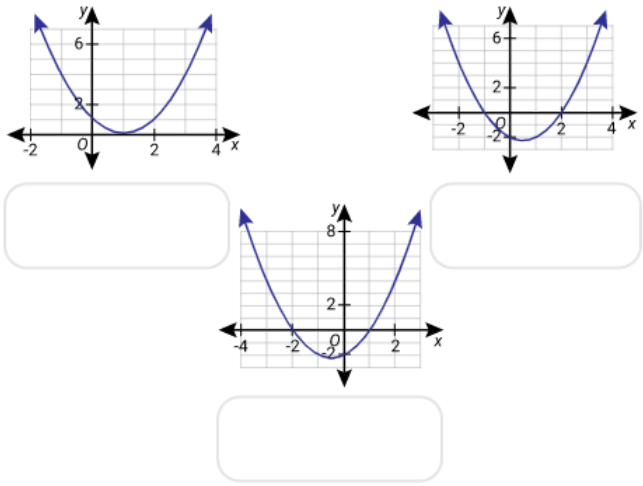


$y = -2x^2$ $y = 2x^2 - 1$

$y = 2x^2 + 1$ $y = 2x^2$

Q21

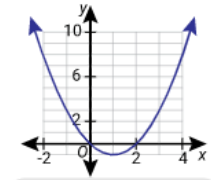
Match each equation with its graph.

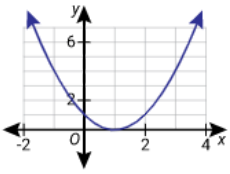


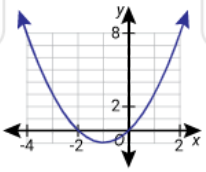
$y = x^2 - x - 2$ $y = x^2 + x - 2$ $y = x^2 - 2x + 1$

Q22

Match each equation with its graph.



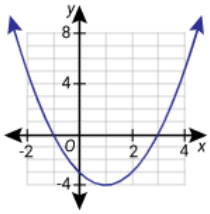


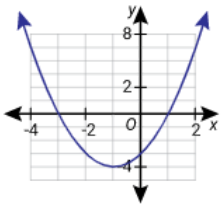


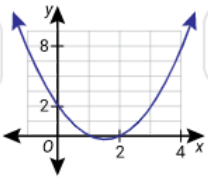
$y = x^2 + 2x$ $y = x^2 - 2x$ $y = x^2 - 2x + 1$

Q23

Match each equation with its graph.



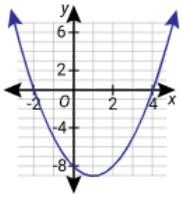


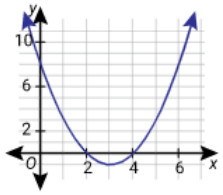


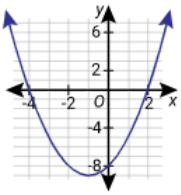
$y = x^2 - 3x + 2$ $y = x^2 + 2x - 3$ $y = x^2 - 2x - 3$

Q24

Match each equation with its graph.



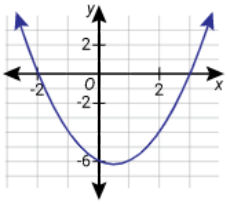


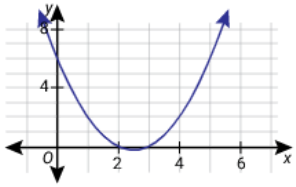


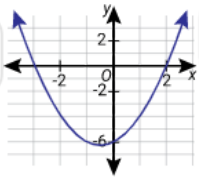
$y = x^2 + 2x - 8$ $y = x^2 - 6x + 8$ $y = x^2 - 2x - 8$

Q25

Match each equation with its graph.



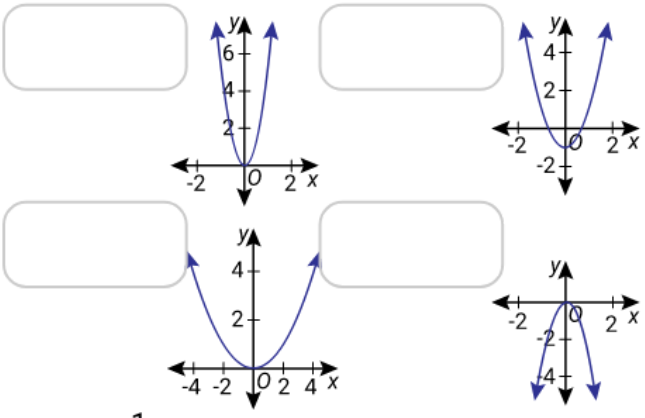




$y = x^2 - x - 6$ $y = x^2 - 5x + 6$ $y = x^2 + x - 6$

Q26

Match the graphs with their equations.



$y = \frac{1}{4}x^2$

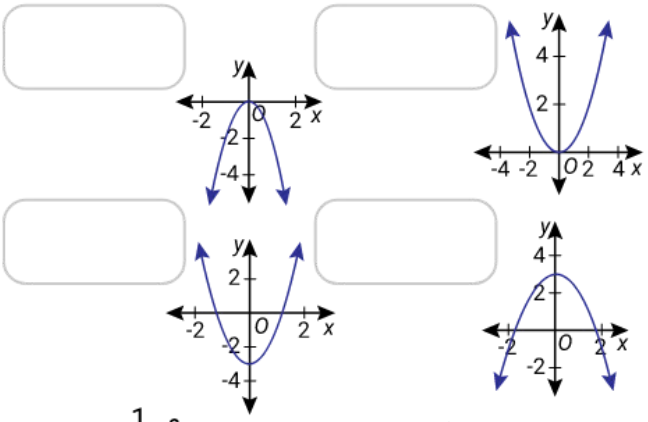
$y = 4x^2$

$y = -3x^2$

$y = 2x^2 - 1$

Q27

Match the graphs with their equations.



$y = \frac{1}{2}x^2$

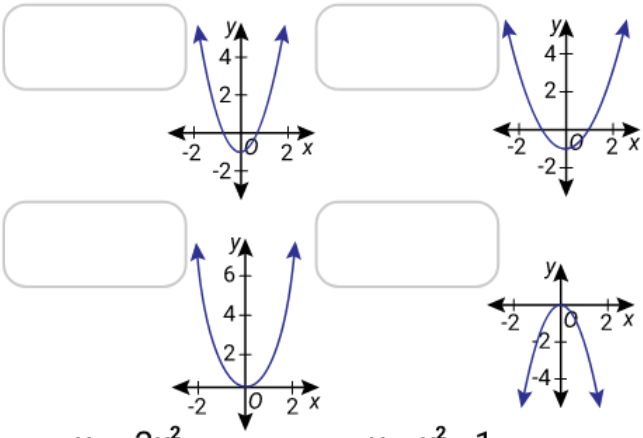
$y = 2x^2 - 3$

$y = -2x^2$

$y = -x^2 + 3$

Q28

Match the graphs with their equations.



$y = -2x^2$

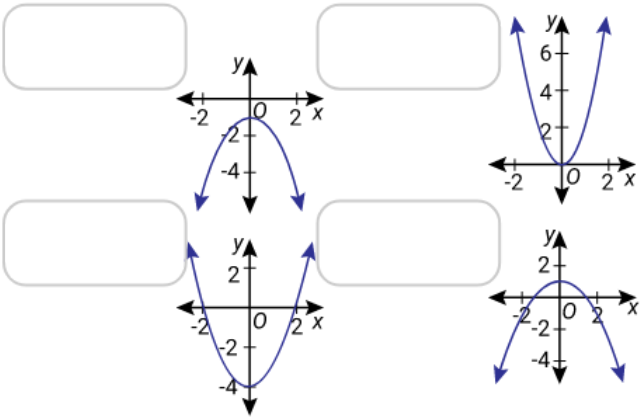
$y = x^2 - 1$

$y = 2x^2$

$y = 2x^2 - 1$

Q29

Match the graphs with their equations.



$y = x^2 - 4$

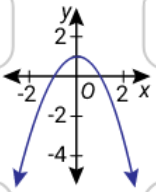
$y = 2x^2$

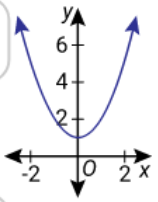
$y = -x^2 - 1$

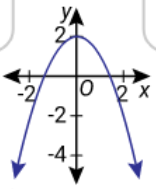
$y = -\frac{1}{2}x^2 + 1$

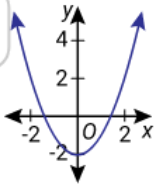
Q30

Match the graphs with their equations.









$y = 2 - x^2$

$y = x^2 - 2$

$y = x^2 + 1$

$y = 1 - x^2$