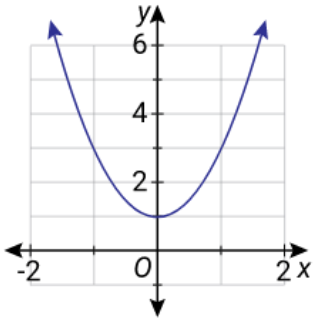
Year 9 Class 13 questions

Q1

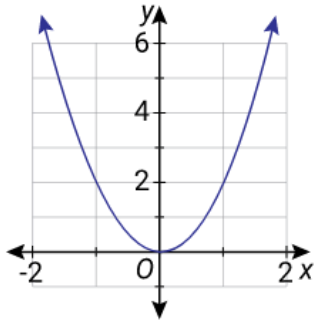
Which equation matches the graph?



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

Q2

Which equation matches the graph?



- $y = x^2 - 2$
- $y = x^2 + 2$
- $y = 4x^2$
- $y = 2x^2$

Q3

Solve $6x(x + 2) = 0$.

$x =$ ☐ or $x =$ ☐

Q4

Solve $7x(x + 3) = 0$.

$x =$ ☐ or $x =$ ☐

Q5

Solve $x^2 - 15x + 56 = 0$.

$x =$ ☐ or $x =$ ☐

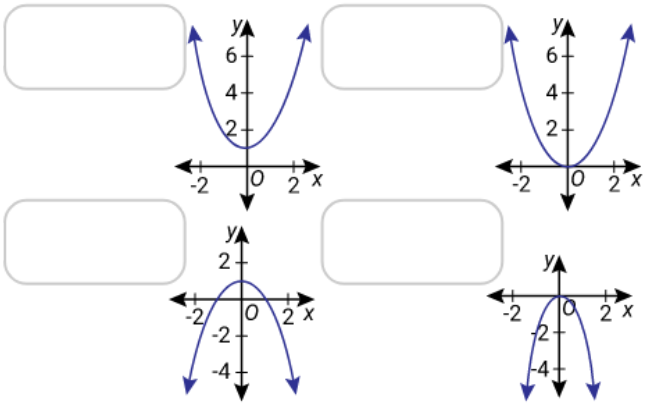
Q6

Solve $x^2 + 24 = 10x$.

$x =$ ☐ or $x =$ ☐

Q7

Match the graphs with their equations.

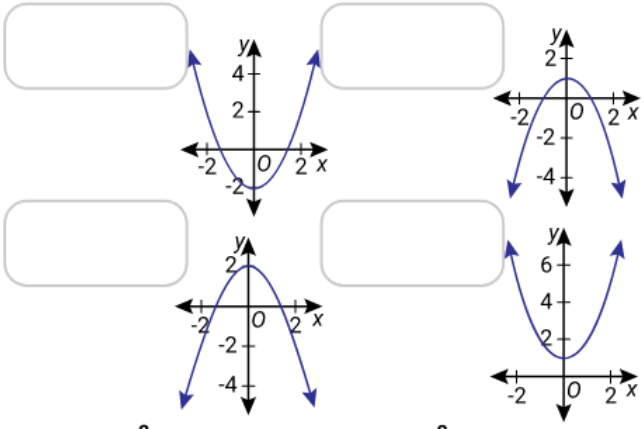


$y = x^2 + 1$ $y = -x^2 + 1$

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

Q8

Match the graphs with their equations.

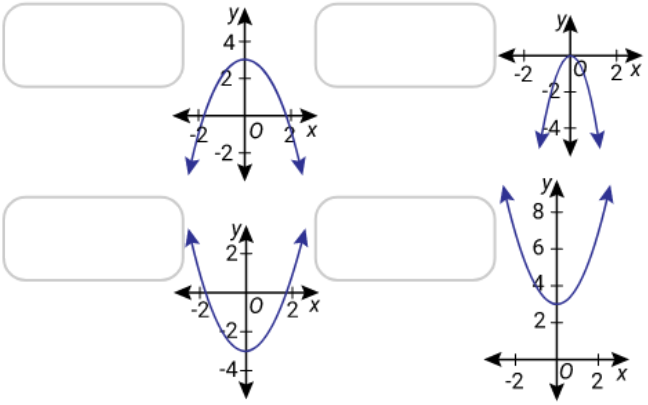


$y = -x^2 + 2$ $y = x^2 - 2$

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

Q9

Match the graphs with their equations.



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

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

Q10

Solve $(x-5)(4x+1) = 0$.

○ $x = -\frac{1}{4}, x = -5$ ○ $x = -4, x = 1$

○ $x = -\frac{1}{4}, x = 5$ ○ $x = 4, x = -1$

Q11

Solve $(x-9)(3x-1) = 0$.

$x =$ ☐ or $x =$ ☐/☐

Q12

Solve $(x-7)(6x-1) = 0$.

$x =$ ☐ or $x =$ ☐/☐

Q13

Solve $x^2 + 4x - 32 = 0$.

$x =$ ☐ or $x =$ ☐

Q14

Solve $x^2 - x - 72 = 0$.

$x =$ ☐ or $x =$ ☐

Q15

Solve $x^2 + 3x - 70 = 0$.

$x =$ ☐ or $x =$ ☐

Q16

Solve $3x + x^2 = 40$.

$x =$ ☐ or $x =$ ☐

Q17

Solve $x^2 - 5x = 14$.

$x =$ ☐ or $x =$ ☐

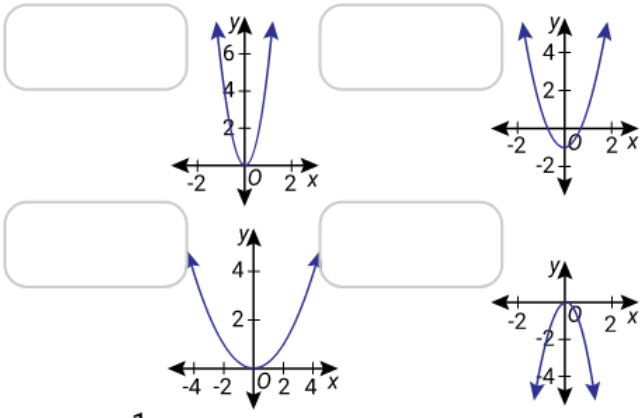
Q18

Solve $4x + x^2 = 32$.

$x =$ ☐ or $x =$ ☐

Q19

Match the graphs with their equations.

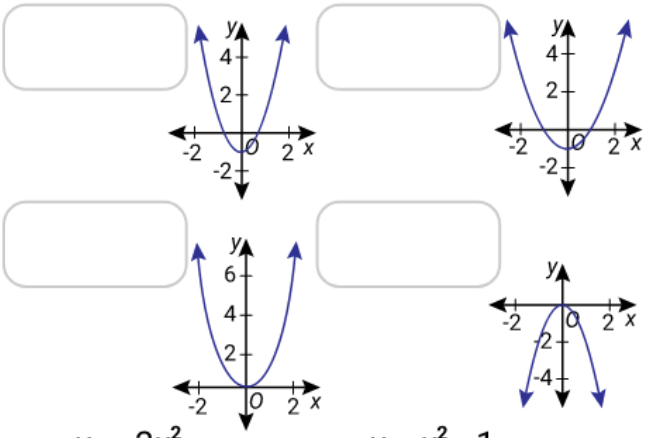


$y = \frac{1}{4}x^2$ $y = 4x^2$

$y = -3x^2$ $y = 2x^2 - 1$

Q20

Match the graphs with their equations.

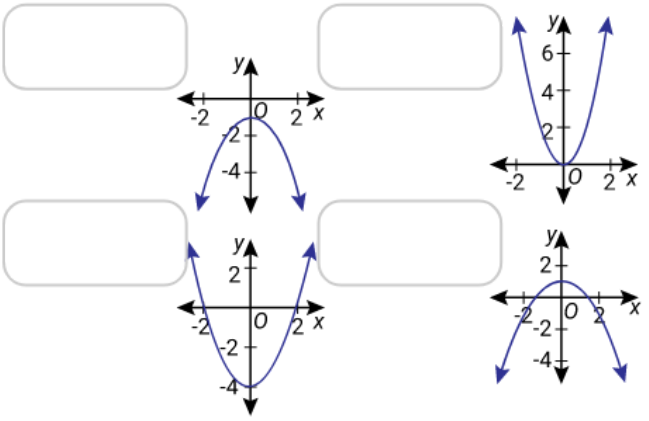


$y = -2x^2$ $y = x^2 - 1$

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

Q21

Match the graphs with their equations.



$y = x^2 - 4$ $y = 2x^2$

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

Q22

Solve $(5x-1)(3x+7) = 0$.

- $x = -\frac{1}{5}, x = \frac{7}{3}$
- $x = \frac{1}{5}, x = \frac{7}{3}$
- $x = \frac{1}{5}, x = -\frac{7}{3}$
- $x = -\frac{1}{5}, x = -\frac{7}{3}$

Q23

Solve $(4x-3)(2x-1) = 0$.

- $x = -\frac{3}{4}, x = \frac{1}{2}$
- $x = -\frac{3}{4}, x = 2$
- $x = \frac{3}{4}, x = \frac{1}{2}$
- $x = -\frac{3}{4}, x = -\frac{1}{2}$

Q24

Solve $(9x+2)(5x+1) = 0$.

- $x = \frac{2}{9}, x = \frac{1}{5}$
- $x = -\frac{2}{9}, x = -\frac{1}{5}$
- $x = \frac{2}{9}, x = -\frac{1}{5}$
- $x = -\frac{2}{9}, x = \frac{1}{5}$

Q25

Solve $2x^2 - 5x - 12 = 0$.

$x =$ $\frac{\square}{\square}$ or $x =$ $\square$

Q26

Solve $2x^2 - 7x + 5 = 0$.

$x =$ $\frac{\square}{\square}$ or $x =$ $\square$

Q27

Solve $5x^2 - 17x + 6 = 0$.

$x =$ $\frac{\square}{\square}$ or $x =$ $\square$

Q28

Solve $2x^2 + 7x = 15$.

$x =$ $\square$ or $\square$

Q29

Solve $5x^2 = 26x + 24$.

$x =$ $\square$ or $\square$

Q30

Solve $4x^2 + 8x = 9 - 27x$.

$x =$ ______ or ______