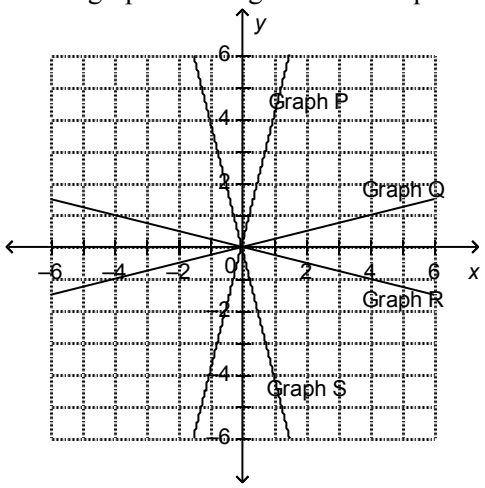
Practice Questions - Unit 4.4

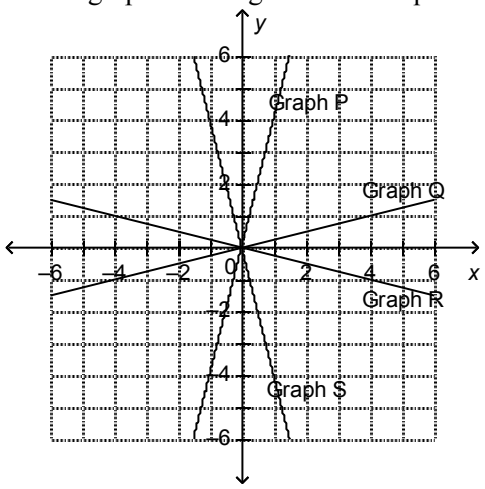
Multiple Choice
Identify the choice that best completes the statement or answers the question.

____ 1. Which graph on this grid has the equation $y = 4x$?



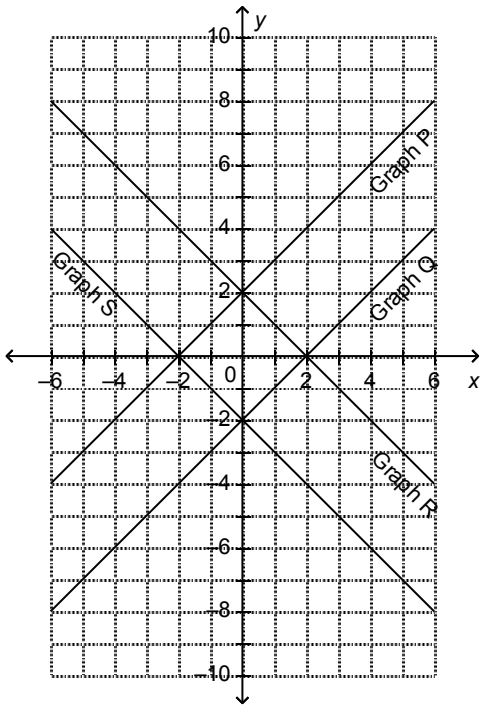
a. Graph Q b. Graph R c. Graph S d. Graph P

____ 2. Which graph on this grid has the equation $y = -0.3x$?



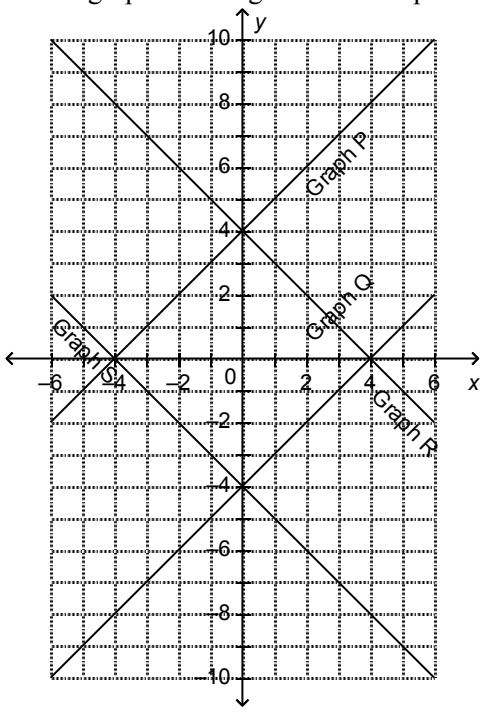
a. Graph S b. Graph R c. Graph Q d. Graph P

____ 3. Which graph on this grid has the equation $y = x - 2$?



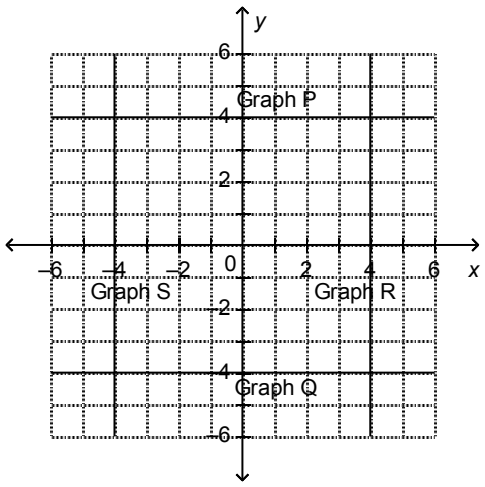
a. Graph S b. Graph Q c. Graph P d. Graph R

____ 4. Which graph on this grid has the equation $y = -x + 4$?



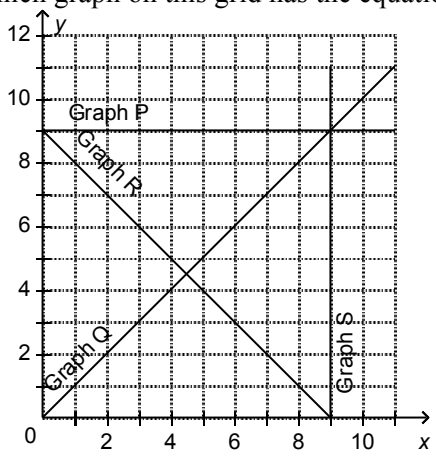
a. Graph S b. Graph P c. Graph R d. Graph Q

____ 5. Which graph on this grid has the equation $y = -4$?



a. Graph P b. Graph S c. Graph R d. Graph Q

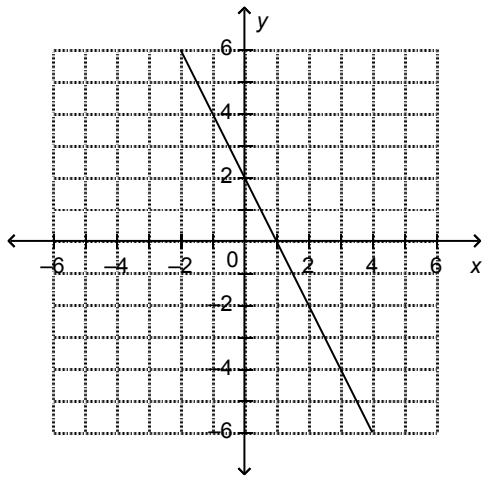
____ 6. Which graph on this grid has the equation $x = 9$?



a. Graph S b. Graph Q c. Graph R d. Graph P

____ 7. Which equation describes the graph below?

i) $y = 2x$
ii) $y = 2x + 2$
iii) $y = -x + 2$
iv) $y = -2x + 2$



a. iii b. ii c. iv d. i

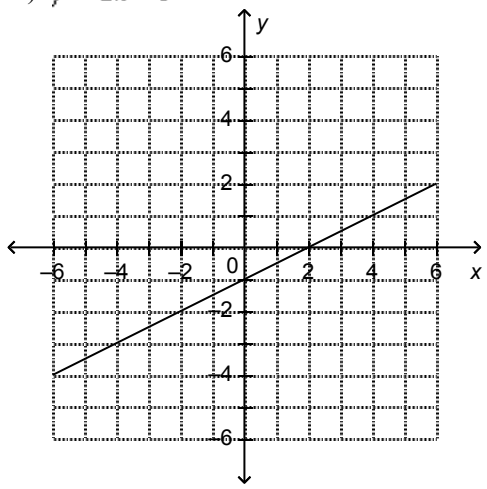
____ 8. Which equation describes the graph below?

i) $y = \frac{1}{2}x + 1$

ii) $y = \frac{1}{2}x - 1$

iii) $y = -2x - 1$

iv) $y = 2x - 1$



a. iii b. i c. ii d. iv

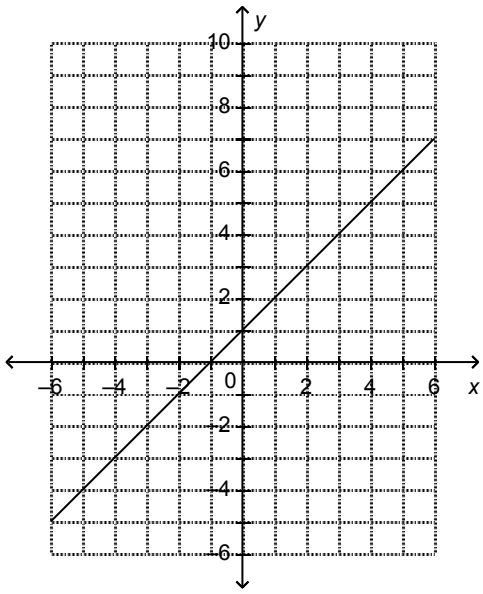
____ 9. Which equation describes the graph below?

i) $x + y = -1$

ii) $x - y = -1$

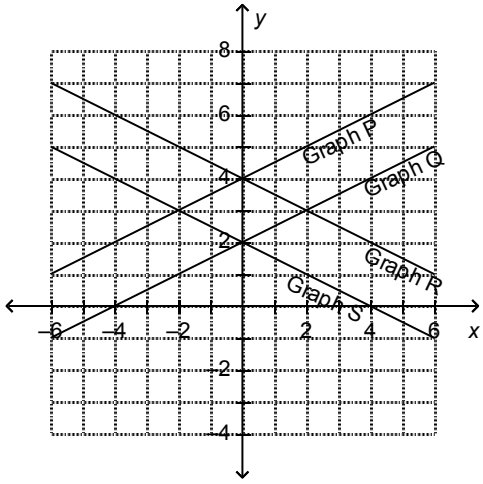
iii) $x + y = 1$

iv) $x - y = 1$



a. iii b. i c. ii d. iv

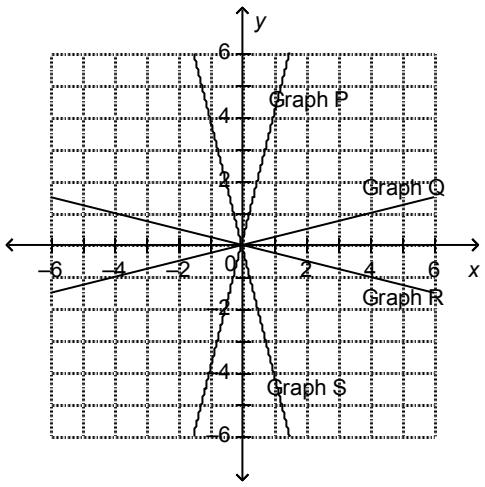
____ 10. Which graph on this grid has the equation $x + 2y = 4$?



a. Graph Q b. Graph P c. Graph S d. Graph R

Short Answer

11. Match each equation with a graph on the grid below.
    i) $y = -0.25x$
    ii) $y = 4x$
    iii) $y = -4x$
    iv) $y = 0.25x$

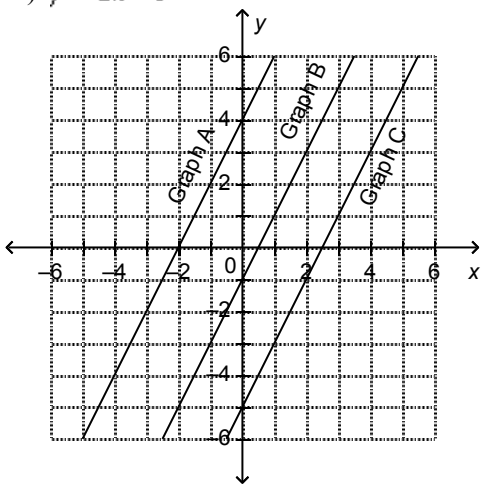


12. Match each equation with a graph on the grid below.

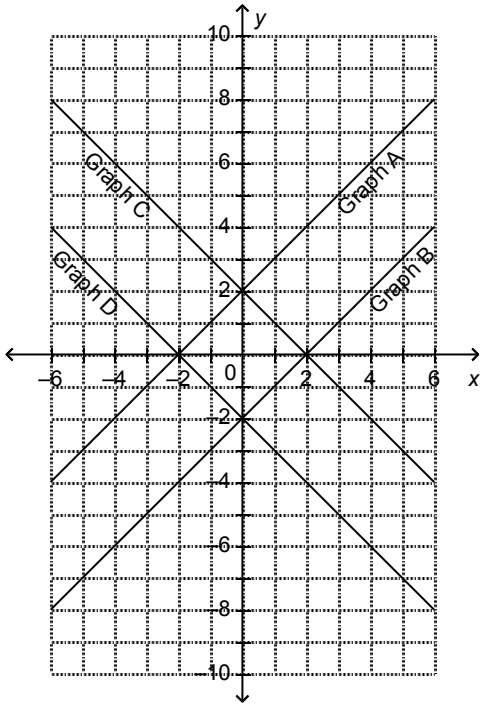
i) $y = 2x - 1$

ii) $y = 2x + 4$

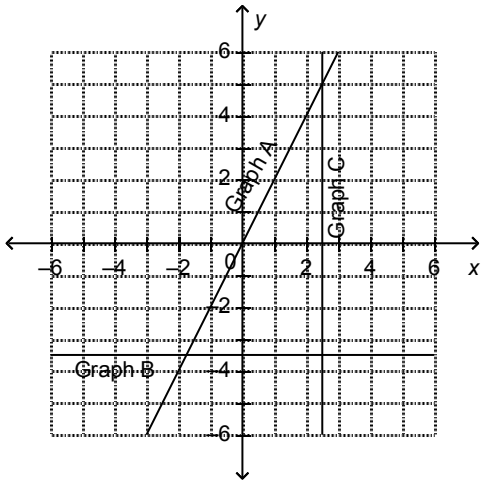
iii) $y = 2x - 5$



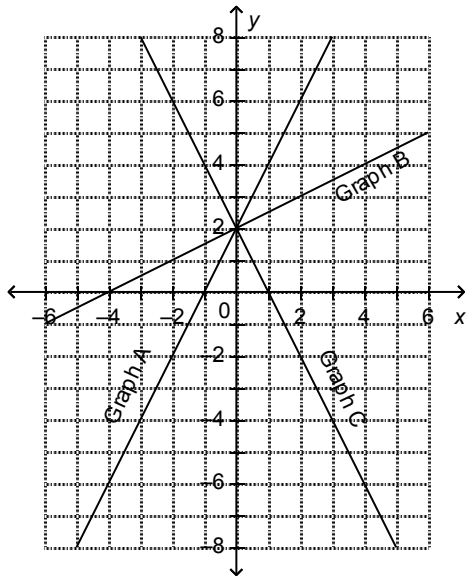
13. Match each equation with a graph on the grid below.
    i) $x + y = 2$
    ii) $x - y = 2$
    iii) $x + y = -2$
    iv) $x - y = -2$



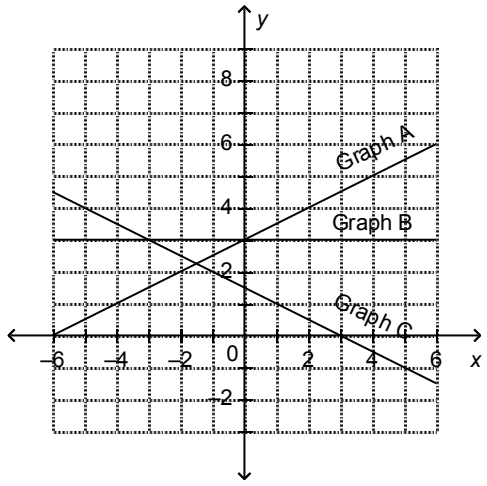
14. Match each equation with a graph on the grid below.
    i) $2x = 5$
    ii) $2y = -7$
    iii) $y = 2x$



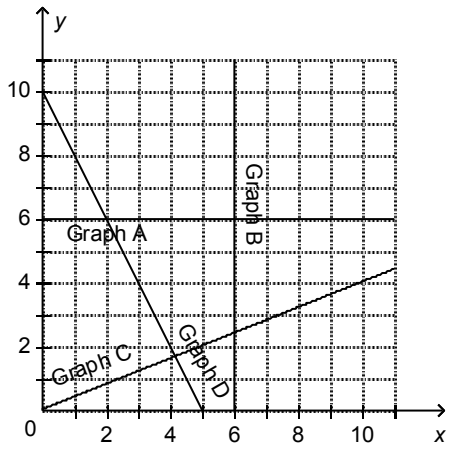
15. Which graph on this grid has the equation $y = 2x + 2$?



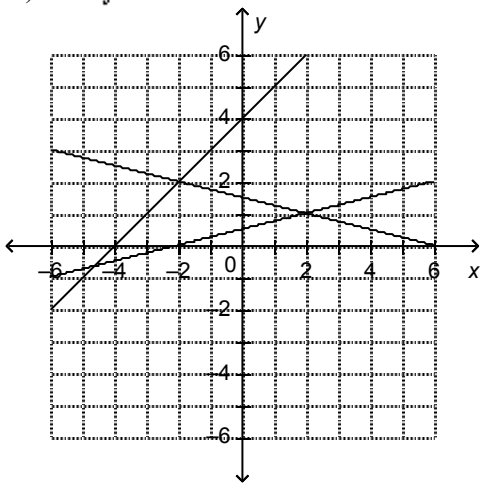
16. Which graph on this grid has the equation $x + 2y = 3$?



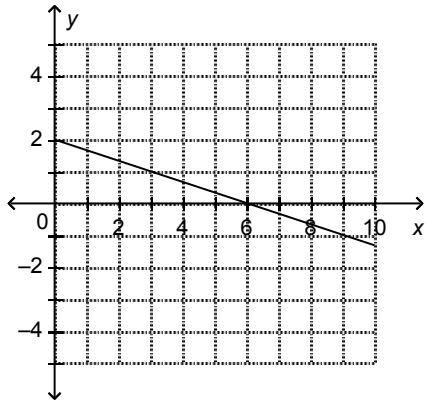
17. Match each equations with its graph below.
    i) $x - 6 = 0$
    ii) $y - 6 = 0$
    iii) $2x + y = 10$
    iv) $x - 2.5y = 0$



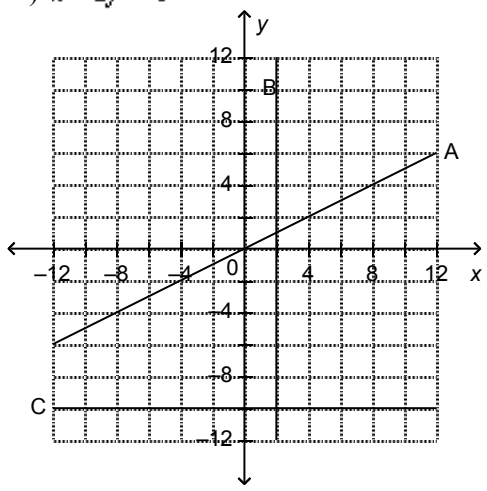
18. Which of these equations does **not** have its graph on the grid below?
    i) $y = x + 4$
    ii) $x + y = 4$
    iii) $x + 4y = 6$
    iv) $x - 4y = -2$



19. Which equation describes the graph?
    i) $x = 6 + 3y$
    ii) $3y = x + 6$
    iii) $x + 3y = 6$
    iv) $-3y = -x + 6$

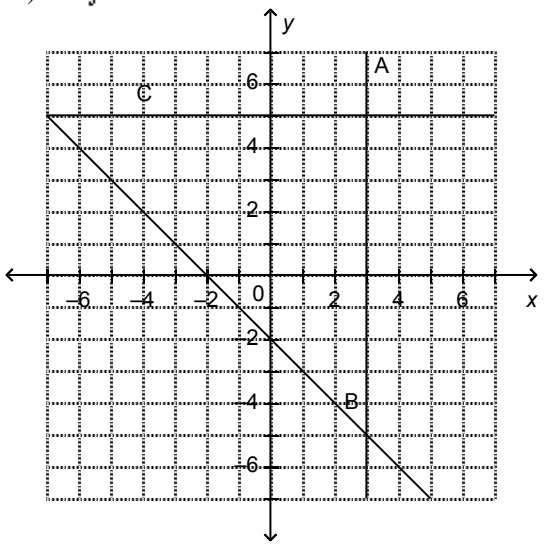


20. Match each equation with a graph on the grid below.
    i) $y = -10$
    ii) $x = 2$
    iii) $x - 2y = 0$

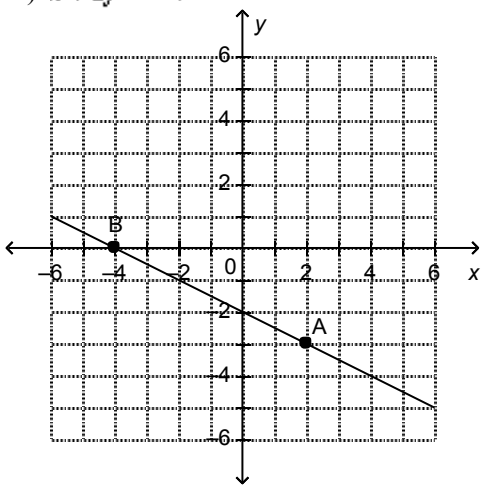


Problems

21. Match each equation with a graph on the grid below. Justify your answer.
    i) $x = 3$
    ii) $y = 5$
    iii) $x + y = -2$



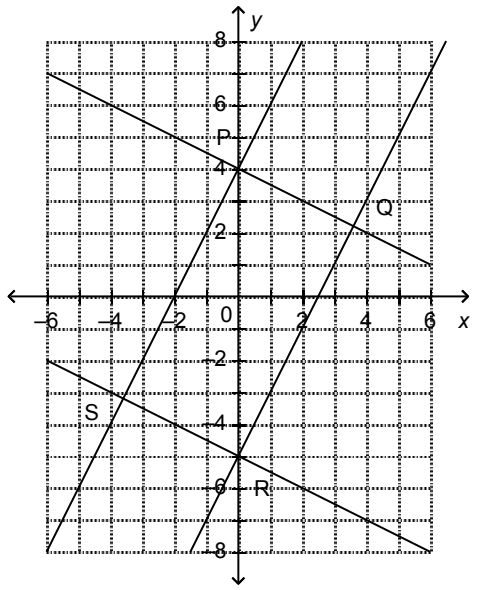
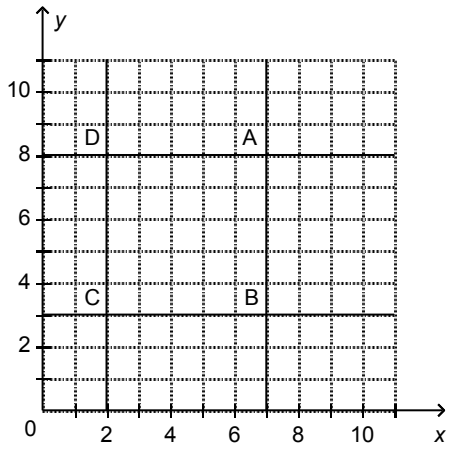
22. Two points on the graph below have coordinates A(2,–3) and B(–4,0).
    Which equation matches the graph? Show your work.
    i) $y = x + 3$
    ii) $x = 2 + y$
    iii) $x + 2y = -4$



23. The lines on the grid below intersect to form rectangle PQRS.
The equations of the lines are:

$y = 2x + 4$; $y = 2x - 5$; $y = -\frac{1}{2}x + 4$; and $y = -\frac{1}{2}x - 5$

What is the equation of the line on which each side of the rectangle lies?
a) PQ b) QR c) RS d) PS



24. The lines on the grid below intersect to form square ABCD. The equations of the lines are:
$x = 2$; $x = 7$; $y = 3$; and $y = 8$
What is the equation of the line on which each side of the square lies?
a) AB b) BC c) CD d) AD