Graphing linear inequalities worksheet – Grade 7

Grade 7 · Mixed level · 20 questions · **Version X3422**

Name: _____ Date: _____ Score: ___ / 20

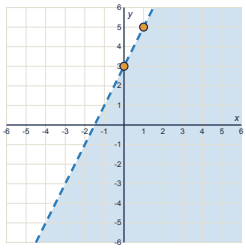
Scan to check answers + earn stars

Done the worksheet? Scan the code (or enter version X3422 on this skill's page at themathmeridian.com) to check your answers online and earn stars.

1. When you graph $y \leq 4x$, do you shade above or below the line?

   A. Above the line **B.** Below the line

2. Which inequality does the graph show?



   A. $y < 2x + 3$ **B.** $y \leq 2x + 3$ **C.** $y > 2x + 3$ **D.** $y \geq 2x + 3$

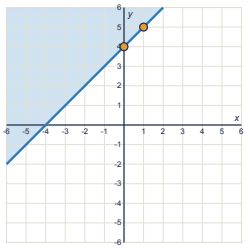
3. Which describes the graph of $y < -4x - 3$?

   A. Solid line, shade above **B.** Solid line, shade below **C.** Dashed line, shade above **D.** Dashed line, shade below

4. Is the point (−2, −3) a solution of $y < -x - 3$?

   A. Yes **B.** No

5. Which inequality does the graph show?



   A. $y \leq x + 4$ **B.** $y < x + 4$ **C.** $y > x + 4$ **D.** $y \geq x + 4$

6. Should the boundary line for $y \leq -2x - 1$ be solid or dashed?

   A. Solid **B.** Dashed

The Math Meridian

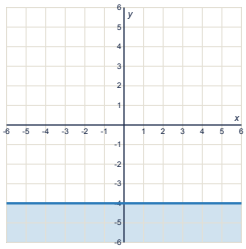
7. When you graph $y < -2x - 2$, do you shade above or below the line?

   A. Above the line **B.** Below the line

8. Is the point (2, −5) a solution of $y > -2x - 1$?

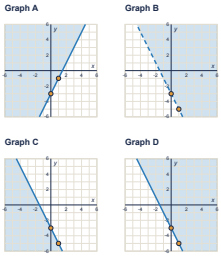
   A. Yes **B.** No

9. Which inequality does the graph show?



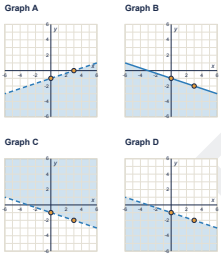
   A. $y < -4$ **B.** $y \leq -4$ **C.** $y > -4$ **D.** $y \geq -4$

10. Which graph shows $y \geq -2x - 3$?



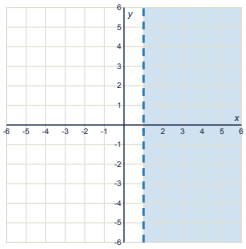
   A. Graph A **B.** Graph B **C.** Graph C **D.** Graph D

11. Which graph shows $y < -\frac{1}{3}x - 1$?



   A. Graph A **B.** Graph B **C.** Graph C **D.** Graph D

12. Which inequality does the graph show?



   A. $x \leq 1$ **B.** $x \geq 1$ **C.** $x > 1$ **D.** $x < 1$

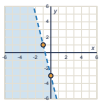
The Math Meridian

13. Is the point (−1, 4) a solution of $y \leq -4x + 2$?

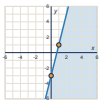
A. Yes **B.** No

14. Which graph shows $y < 4x - 3$?

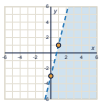
Graph A



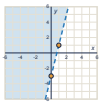
Graph B



Graph C



Graph D



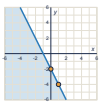
A. Graph A **B.** Graph B **C.** Graph C **D.** Graph D

15. Write $x - y > 3$ with y on its own.

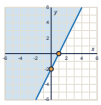
A. $y < x - 3$ **B.** $y \leq x - 3$ **C.** $y > x - 3$ **D.** $y < -x - 3$

16. Which graph shows $-6x + 3y \leq -6$?

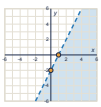
Graph A



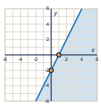
Graph B



Graph C



Graph D



A. Graph A **B.** Graph B **C.** Graph C **D.** Graph D

17. Which point is a solution of $6x + 3y > -12$?

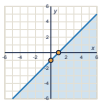
A. (−2, −3) **B.** (−1, −3) **C.** (−5, −3) **D.** (2, 1)

18. Write $6x + 3y \geq 9$ with y on its own.

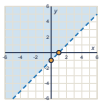
A. $y \leq -2x + 3$ **B.** $y \geq -2x + 3$ **C.** $y \geq 2x + 3$ **D.** $y > -2x + 3$

19. Which graph shows $-2x + 2y < -2$?

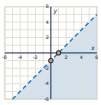
Graph A



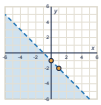
Graph B



Graph C



Graph D



A. Graph A **B.** Graph B **C.** Graph C **D.** Graph D

20. Which point is a solution of $3x - y \geq -2$?

A. (−2, 3) **B.** (−5, 5) **C.** (1, 5) **D.** (−5, −1)

The Math Meridian

Answer key · Version X3422

Graphing linear inequalities worksheet – Grade 7 · Grade 7 · to reprint this sheet or check the answers, enter X3422 on the skill page.

1. **B (Below the line)**
2. **A ($y < 2x + 3$)**
3. **D (Dashed line, shade below)**
4. **A (Yes)**
5. **D ($y \geq x + 4$)**
6. **A (Solid)**
7. **B (Below the line)**
8. **B (No)**
9. **B ($y \leq -4$)**
10. **D (Graph D)**
11. **D (Graph D)**
12. **C ($x > 1$)**
13. **A (Yes)**
14. **C (Graph C)**
15. **A ($y < x - 3$)**
16. **D (Graph D)**
17. **D ((2, 1))**
18. **B ($y \geq -2x + 3$)**
19. **C (Graph C)**
20. **C ((1, 5))**

The Math Meridian