

3-1 Homework

Write an inequality that represents each verbal expression.

1. v is greater 10.
2. b is less than or equal to -1 .
3. the product of g and 2 is less than or equal to 6.
4. 2 more than k is greater than -3 .

Determine whether each number is a solution of the given inequality.

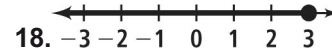
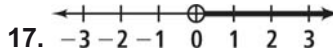
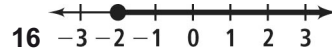
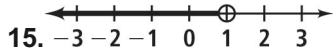
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|---------------------------|---------|---------|----------|
| 5. $3y + 5 < 20$ | a. 2 | b. 0 | c. 5 |
| 6. $2m - 4 \geq 10$ | a. -1 | b. 8 | c. 10 |
| 7. $4x + 3 > -9$ | a. 0 | b. -2 | c. -4 |
| 8. $\frac{3-n}{2} \leq 4$ | a. 3 | b. 2 | c. -10 |

Graph each inequality.

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|-----------------|------------------------|
| 9. $y < -2$ | 10. $t \geq 4$ |
| 11. $z > -3$ | 12. $v \leq 15$ |
| 13. $-3 \geq f$ | 14. $-\frac{5}{3} < c$ |

3-1 Homework (continued)

Write an inequality for each graph.



Define a variable and write an inequality to model each situation.

19. The school auditorium can seat at most 1200 people.
20. For a certain swim meet, a competitor must swim faster than 23 seconds to qualify.
21. For a touch-typing test, a student must type at least 65 wpm to receive an “A.”

Write each inequality in words.

22. $n < 3$
23. $b > 0$
24. $-5 \leq x$
25. $z \geq 3.14$
26. $-4 < q$
27. $18 \geq m$
28. A local pizzeria offered a special. Two pizzas cost \$14.99. A group of students spent less than \$75. They purchased three pitchers of soda for \$12.99. How many pizzas could the group purchase?
29. A student needs at least seven hours of sleep each night. The student goes to bed at 11:00 p.m. and wakes up before 6:30 a.m. Is the student getting enough sleep? Write an inequality for the number of hours of sleep the student gets each night.