



## Word problems on inequalities

- 1)  $x$  is at most 30 \_\_\_\_\_
- 2) The sum of  $5x$  and  $2x$  is at least 14 \_\_\_\_\_
- 3) The product of  $x$  and  $y$  is less than or equal to 4 \_\_\_\_\_
- 4) 5 less than a number  $y$  is under 20 \_\_\_\_\_
- 5) If 5 times a number is increased by 4, the result is at least 19. Find the least possible number that satisfies these conditions.
- 6) The sum of twice a number and 5 is at most 15. What are the possible values for the number?
- 7) The cost of a gallon of orange juice is \$3.50. What is the maximum number of containers you can buy for \$15?
- 8) The quotient of a number and 15 is no greater than 450. What are the possible values for the number?



- 9) Jason is saving up to buy a digital camera that costs \$490. So far, he saved \$175. He would like to buy the camera 3 weeks from now. What is the equation used to represent how much he must save every week to have enough money to purchase the camera?
- 10) Sid is \$300 in debt. He needs to get the debt down to no more than \$100 within the next 8 months. If he pays the same amount each month, what is the minimum he must pay off each month to manage this?



- 11) Joe's cell phone costs him \$21 per month plus \$3 for every 1GB of data downloaded. What is the limit to the number of GBs he can download to stay within his monthly budget of \$30?
- 12) Allison practices her violin for at least 12 hours per week. She practices for three fourths of an hour each session. If Allison has already practiced 3 hours this week, how many more sessions remain for her to meet or exceed her weekly practice goal?



## Answers

1.  $x \leq 30$
2.  $x \geq 2$
3.  $xy \leq 4$
4.  $y - 5 < 20$
5.  $x \geq 3$
6.  $x \leq 5$
7.  $c \leq 4$
8.  $x \leq 6750$
9.  $x \leq 105$
10.  $x \leq 25$
11.  $x \leq 3$
12.  $x \leq 12$