

# Solving a word problem using a one-step linear inequality: Worksheet 11.3

Name ..... Date ..... Score .....

Solve the following word problems using one-step linear inequality. Use  $x$  to represent the unknown quantity.

1. A pilot must log at least 1200 training hours to fly an aircraft. Jim logged 450 hours. How many more hours must he log to qualify?
2. Seven more than a number is greater than 21. Find the number.
3. While training for a marathon, you consume at least 2400 calories a day. For one session of exercise, you consume 700 calories. How many calories do you consume for the rest of the day?
4. Eight more than a number is greater than or equal to 24. Find the number.
5. Sue has \$27 left for a cab fare home. The cab fare is \$3 per mile. What is the maximum number of miles she will be able to travel in the cab?
6. Five more than a number is less than 19. Find the number.
7. Sandra won 42 toffees in a competition. She gives one toffee each of her classmates and has at least 8 toffees left at the end. Find the number of students in her class.
8. In 7 years, Nicole will be old enough to vote in an election. The minimum age for voting is at least 18 years. What can you say about how old she is now?
9. Brad has a \$36 online gift voucher. He plans to buy as many books as he can. The cost of each book is \$3. How many books can he afford without spending more than his gift voucher amount?
10. A teacher charges \$2 for a pencil to student who forgot to bring one to class. Nelson was charged at least \$22, how many times did he forget his pencil?



## Solutions: Worksheet 11.3

1.  $x \geq 750$  hours
2.  $x > 14$
3.  $x \geq 1700$  calories
4.  $x \geq 16$
5.  $x \leq 9$  miles
6.  $x < 14$
7.  $x \leq 34$
8.  $x \geq 11$  years
9.  $x \leq 12$  books
10.  $x \geq 11$  times

