Proportionality

1. 7 men can complete a work in 52 days. In how many days will 13 men finish the same work?
   Answer:_____ days

2. If x is inversely proportional to w. Complete the following table.

w	1		6
x	18	6	

3. A truck covers a particular distance in 3 hours with the speed of 60 miles per hour. If the speed is increased by 30 miles per hour, find the time taken by the truck to cover the same distance.

   Answer:_____ hours

4. David can complete a work in 6 days working 8 hours per day. If he works 3 hours per day, how many days will he take to complete the work?

   Answer:_____ days

5. The cost of a taxi is $40.50 for 15 miles. Find the cost for 20 miles.

   Answer:_$____

Linear Inequalities

1. Jennifer is planning a holiday. The hotel costs £60 per night and her flights cost £150. She has a budget of £500 for hotel and flights. Up to how many nights can she afford in the hotel?
   Answer:_____nights

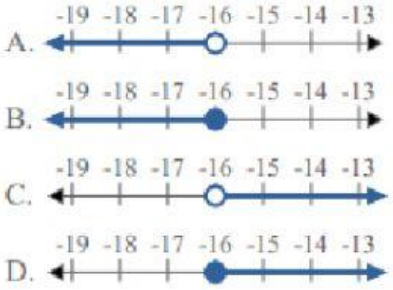
2. Jill has a job offer. She is offered either £50 per day, or £30 per day plus a commission of £3 for every plant she sells. How many plants does she need to sell to make the commission offer the best paying option?
   Answer:_____plants

3. Joel is looking at costs for using a gym. He could pay £50 per month for unlimited use or he could pay £12 per month plus £4 per visit. How many visits would he have to make each month to make the £50 per month unlimited use option the cheapest one?
Answer:_____visits

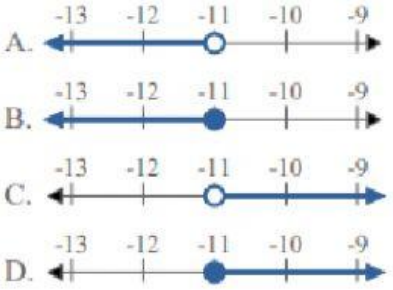
4. Sam and Alex play in the same soccer team. Last Saturday Alex scored 3 more goals than Sam, but together they scored less than 9 goals. What are the possible number of goals Alex scored?
Answer:___or___or___

5. Choose the correct answer

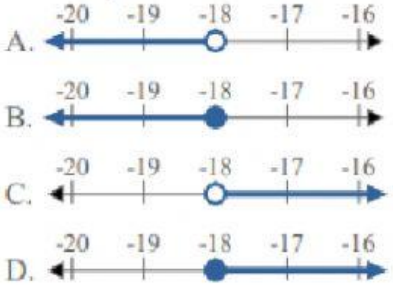
1) Which option best shows $X > -16$



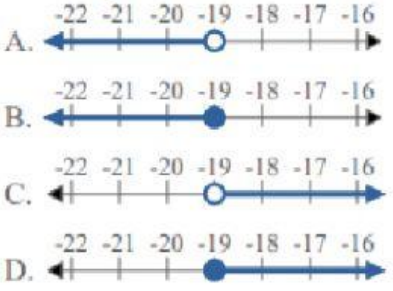
2) Which option best shows $X \geq -11$



3) Which option best shows $X \leq -18$



4) Which option best shows $X > -19$



5) Which option best shows X < -15

A. 

B. 

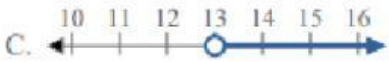
C. 

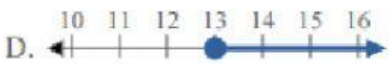
D. 

6) Which option best shows X ≤ 13

A. 

B. 

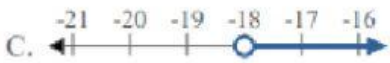
C. 

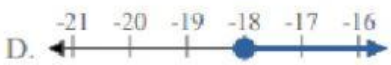
D. 

7) Which option best shows X > -18

A. 

B. 

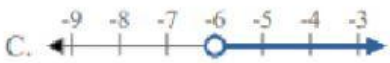
C. 

D. 

8) Which option best shows X < -6

A. 

B. 

C. 

D. 

6. Solve the following inequalities

a. $x + 5 \geq 13$ x

b. $3x - 4 \leq 11$ x

c. $4x + 3 > 9 + 2x$ x

d. $3x - 2 \geq 5x - 8$ x

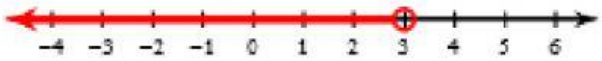
e. $1 - 7x < 3x + 11$ x

f. $2(x - 4) < x + 7$ x

g. $3(5x - 1) \geq 2(7x + 2)$ x

7. Match the inequalities with the number lines

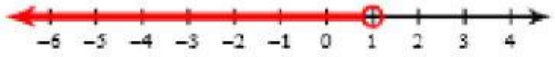
$18 \geq 5k + 4k$



$3 < -5n + 2n$

No Solution

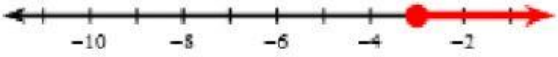
$-3 - 6(4x + 6) > -111$



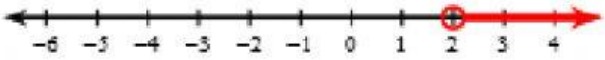
$-6(1 + 7k) + 7(1 + 6k) \leq -2$



$3(p - 3) - 5p > -3p - 6$



$28 - 7x \leq -4(-7x - 7)$

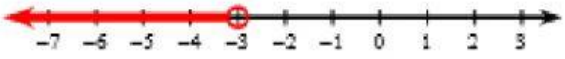


$a - 6 \leq 15 + 8a$



$167 < 6 + 7(2 - 7r)$







8. Find the values of x for which the following inequalities are true.

a. $-5 \leq 4x-1 < 7$ x

b. $-3 < 2x-5 \leq 1$ x

c. $-3 \leq \frac{4x-9}{3} \leq 7$ x

d. $x - 6 < \frac{7x+1}{4} < x + 5$ x