

able to solve other inequalities

3. For each of the following given statements, make up your own **inequality** and solve it to find x :

a Gary has £ x saved. Josh has £120.

Together they **do not** have enough money to buy a game station costing £190. $\Rightarrow x \dots$

(hint :- $x + \dots < 190$)



b Vera and Sara are saving together for a holiday, total cost £775.

Vera has £ x and Sara has £400. They have **more** than enough saved. $\Rightarrow \dots$

c



James has £ x in his bank. He withdraws £10.

He still has **more** than enough in his account to pay for a bank charge of £35. $\Rightarrow \Rightarrow \dots$

d Sally has £ x . Brenda has twice as much as Sally.

Brenda has less than £50. $\Rightarrow \dots$

e The maximum speed limit in a village is x mph.

Darren received a ticket for going at 2 times the speed limit.

Darren was travelling faster than 60 mph. $\Rightarrow \dots$



4. Find the value of x by solving these inequalities :- (Set down your working carefully).

a $3x + 2 < 14$

b $2x + 5 > 13$

c $5x + 1 < 1$

d $4x + 2 \geq 34$

e $6x - 1 \leq 23$

f $5x - 16 > 39$

g $8x - 8 \leq 0$

h $4x - 6 < 6$

i $9x - 2 > 52$

j $10x - 3 \geq 57$

k $7x + 10 < 45$

l $6x - 11 \leq 55$

m $5x - 12 \geq 3$

n $9x + 10 < 10$

o $2x + 7 \geq 12$

p $\frac{1}{2}x - 12 \geq 3$

q $\frac{1}{2}x + 10 < 10$

r $0.1x + 7 \geq 12$.

5. Solve each inequality, by taking each value from the given list and checking to see if it works

Inequality	Numbers chosen from	Inequality	Numbers chosen from
a $2x > 6$	{1, 2, 3, 4, 5}	b $4x < 20$	{1, 2, 3, 4, 5}
c $x + 4 < 7$	{0, 1, 2, 3, 4}	d $x - 5 > 0$	{2, 3, 4, 5, 6, 7}
e $4x + 2 \geq 6$	{0, 1, 2, 3}	f $3x - 1 \leq 8$	{-1, 0, 1, 2, 3, 4}
g $15 - x \geq 12$	{1, 2, 3, 4, 5, 6}	h $15 - 2x \leq 11$	{0, 1, 2, 3, 4, 5, 6}
i $3x > 3$	{-1, 0, 1, 2, 3}	j $\frac{1}{2}x \leq 1$	{-2, -1, 0, 1, 2, 3, 4, 5}