

Solve the following inequalities, graph your solution on a number line:

1) $-2(2x - 3) \geq -10$

2) $3x + 8 < 44$

3) $\frac{1}{4}x - \frac{2}{3} \leq \frac{3}{4}$

4) $-\frac{1}{5}x + \frac{2}{3} > \frac{3}{5}$

5) Write and solve an inequality for the following situation:

Sam is saving money for a car. He has \$2500 already saved. If he can save \$300 per month. How many months will he have to save so that he has at least \$7000.

6) Given $m\angle ABC = 35^\circ$
a) Find its compliment

b) Find its supplement

7) Factor the following expression:
 $24x - 64$

8) Factor the expression below:

$$12x + 18$$

9) Explain how you could determine whether the following three lengths make up a triangle:
8, 20, 13

10) Find the volume of a cube whose lengths are 5cm.