1. Remove parenthesis:
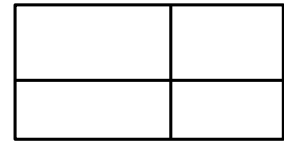
$(x + 3)(x - 2) =$ _____
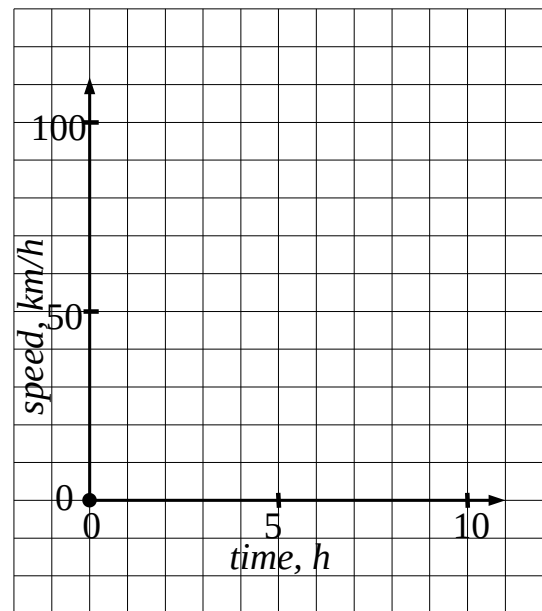
$(y + 2) \cdot (2y + 5) =$ _____

$(2w + 1)^2 =$ _____

2. Make a graph and use it to solve the word problems below:

a). A car going from city A to city B located 300 km away from A. At first it was moving on a side road at 60 km/h. How long did it take the car to get to the highway that was 180 km away?
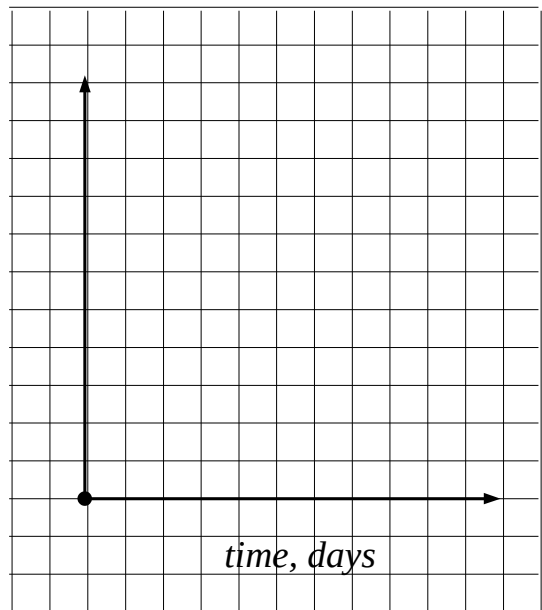
_____

On the highway the car started moving 120 km/h. How long did it take to get to city B?

_____

3. *A lion in a zoo eats 5 kg of meat a day. 20 days later the zoo buys another lion that eats 4 kg of meat a day. How much meat would the zoo need for the first 60 days?*

4. Analyze the production of freezers on a factory.

What was the initial productivity of the factory?

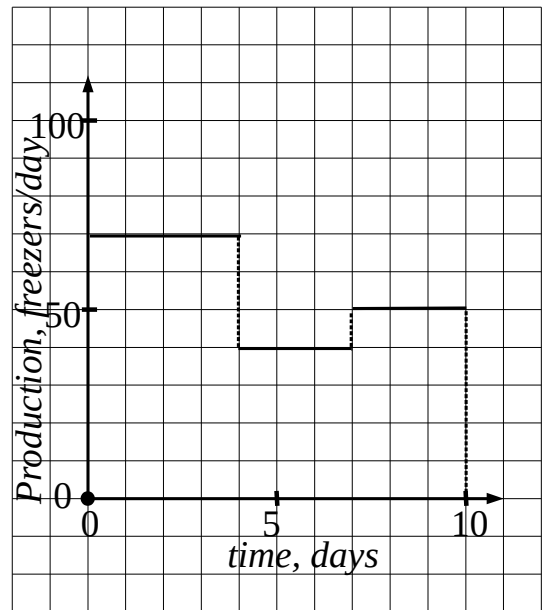*How long did it take the factory to produce
210 freezers?*

After how many days did the productivity drop?

*How many freezers did the factory produce
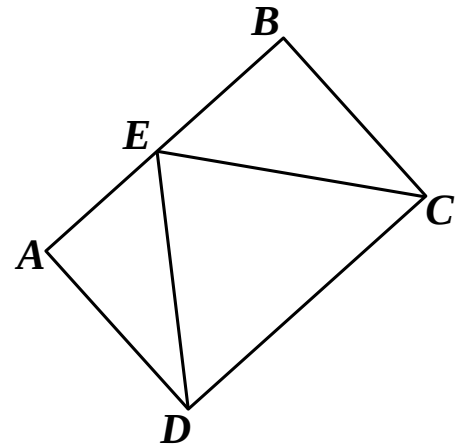before its productivity dropped?*

How many freezers did the factory produce in the first 7 days?

How long did it take the factory to produce 360 freezers?

How many freezers did the factory produce in 10 days?

6. Given rectangle **ABCD**. |**AB**| = 6 cm, |**BC**| = 4 cm.
Find the area of the triangle △**DCE**.

7. Solve the equations:

a) $2 \cdot (4x - 1) + (6x - 63) : 3 = \frac{1}{2}(6x - 4)$

b) $|2x - 1| = 5$

c) $\dfrac{1}{1 - \dfrac{2}{x}} = 3$