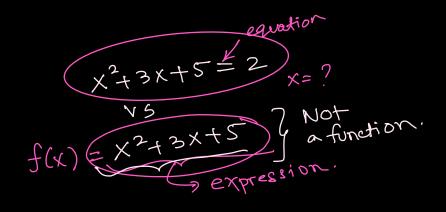
QUADRATICS

Function
$$f(x) = x+3$$

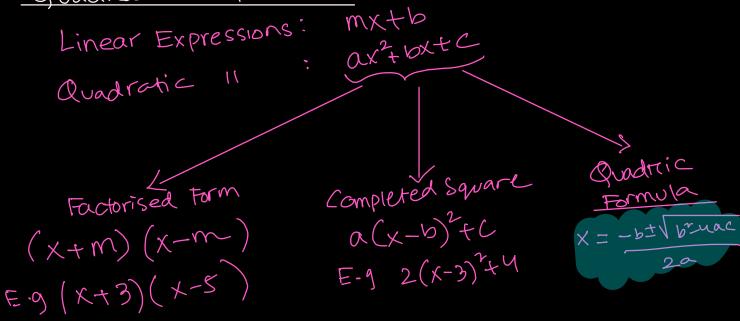
$$f(2) = 2+3$$

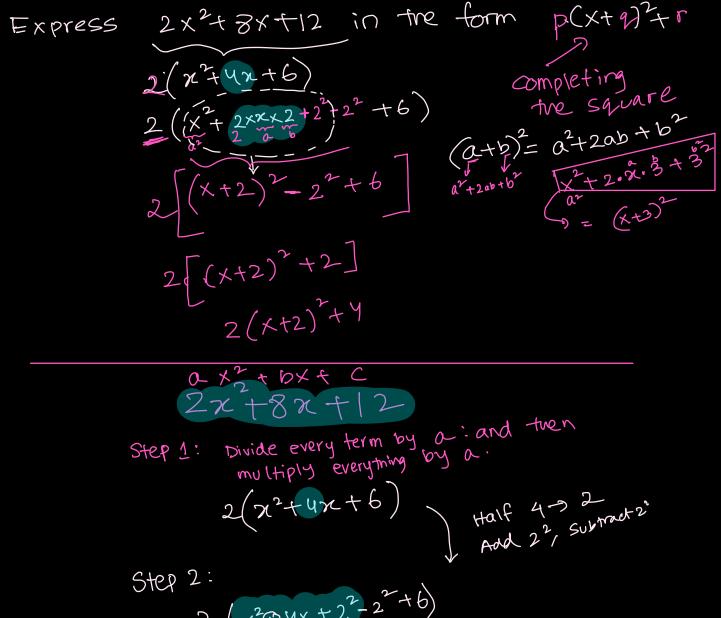
$$f(5) = 5+3$$





Quadratic expression.





Step 2: $2 \left(\frac{2}{x^2} + \frac{$

$$3x^{2}-18x+30 \rightarrow \text{Complete square}$$
 $3(x^{2}-6x+10) \rightarrow \text{step } 1$
 $3(x^{2}-6x+3^{2}-3^{2}+10) \rightarrow \text{step } 2$
 $3((x-3)^{2}+3)$
 $3((x-3)^{2}+3)$

- 2) Add middle ferm's half's square and subtract if again.
- 3) form ()²
 by looking at the ferms.

$$2x^{2} - 10x + 5 \rightarrow \text{ Completing tre square}$$

$$2(x^{2} - 5x + \frac{5}{2})$$

$$2(x^{2} - 5x + (\frac{5}{2})^{2} - (\frac{5}{2})^{2} + \frac{5}{2})$$

$$2((x - \frac{5}{2})^{2} - (\frac{5}{2})^{2} + \frac{5}{2})$$

$$-2((x - \frac{5}{2})^{2} - (\frac{5}{2})^{2} - \frac{15}{2})$$

Homeworcks.
Complete the squares for the following:

$$i) x^{2}-6x+6$$

(i)
$$2x^2 - 16x - 4$$