

Complete the square for the following and state the vertex. Leave answers in fraction form where applicable, NO DECIMALS thank you.

1/ $f(x) = x^2 + 10x + 6$

2/ $f(x) = 2x^2 + 12x + 16$

3/ $f(x) = -3x^2 + 6x + 1$

4/ $f(x) = -x^2 + 12x - 5$

5/ $f(x) = -\frac{1}{2}x^2 - x + 4$

6/ $f(x) = \frac{2}{3}x^2 + \frac{16}{3}x + 2$

7/ $f(x) = x^2 + 7x$

8/ $f(x) = x^2 - 9x - 3$

9/ $f(x) = 2x^2 - 5x - 1$

10/ $f(x) = 7x^2 - x - 2$