Answer on Question # 42520 – Math Calculus

Find a cubic function with the given zeros.

Square root of seven., -Square root of seven., -4

f(x) = x3 + 4x2+ 7x - 28

f(x) = x3 + 4x2 - 7x - 28

f(x) = x3 - 4x2 - 7x - 28

f(x) = x3 + 4x2 - 7x + 28

show work and explain me please i'm still having problem on f(x).

Solution.

We can determine the cubic function from the expression:

$$\left(x-\sqrt{7}\right)\left(x+\sqrt{7}\right)(x+4)=0, as\ zeros\ are\ \sqrt{7},-\sqrt{7},-4.$$

So, we have

$$\left(x-\sqrt{7}\right)\left(x+\sqrt{7}\right)(x+4)=(x^2-7)(x+4)=x^3+4x^2-7x-28.$$