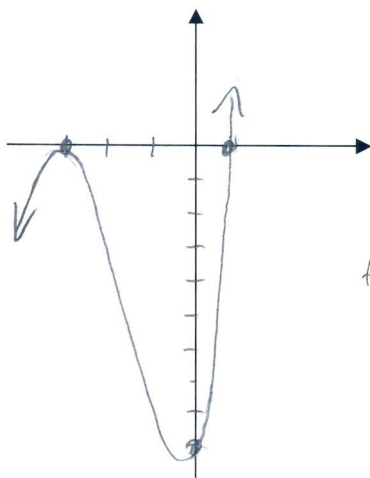


Graphing Polynomials WS 1

Name Fuston

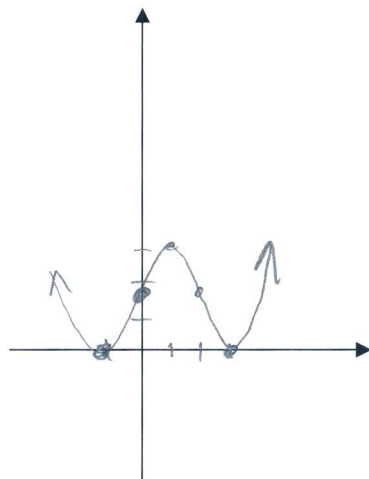
Graph each function. Identify x-intercepts (zeros), y-intercept, and turning points.

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



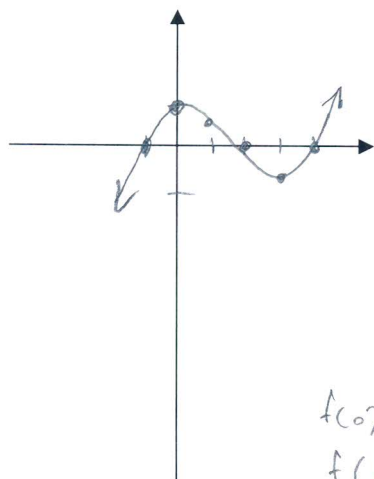
$f(0) = -9$   
 $f(-1) = 8$

2.  $f(x) = \frac{1}{5}(x-3)^2(x+1)^2$



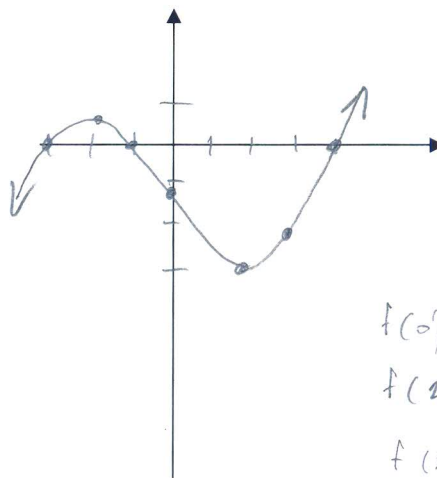
$f(0) = \frac{9}{5}$   
 $f(1) = \frac{16}{5}$   
 $f(2) = \frac{9}{5}$

3.  $f(x) = \frac{1}{8}(x-2)(x+1)(x-4)$



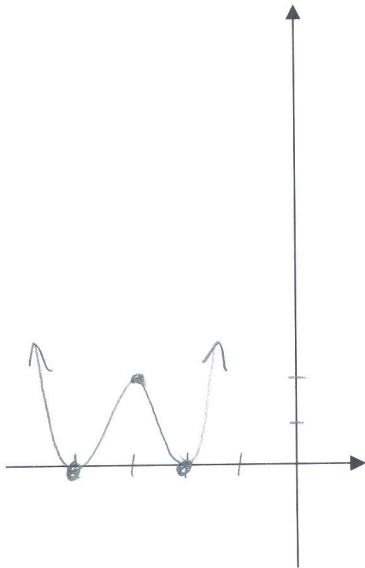
$f(0) = 1$   
 $f(1) = 0.75$   
 $f(3) = -0.5$

4.  $f(x) = \frac{1}{10}(x+3)(x+1)(x-4)$



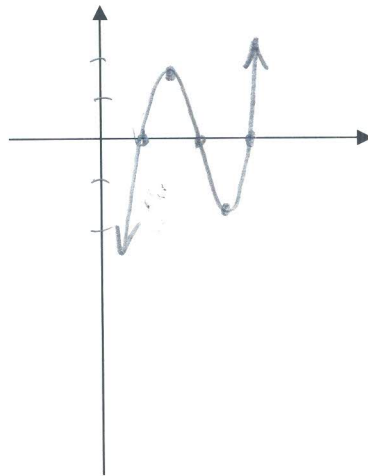
$f(0) = -1.2$   
 $f(2) = -3$   
 $f(3) = -2.4$   
 $f(-2) = 0.6$

$$5. f(x) = 2(x+2)^2(x+4)^2$$



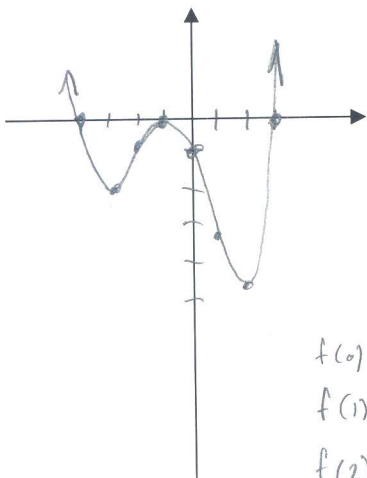
$$\begin{aligned} f(0) &= 128! \\ f(-1) &= 18 \\ f(-3) &= 2 \end{aligned}$$

$$6. f(x) = 5(x-1)(x-2)(x-3)$$



$$\begin{aligned} f(0) &= -30 \\ f(1.5) &= -1.875 \\ f(2.5) &= -1.875 \end{aligned}$$

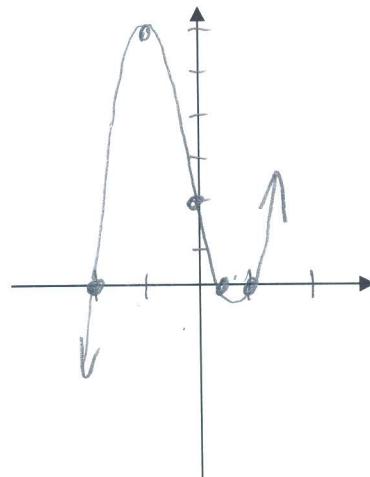
$$7. f(x) = \frac{1}{12}(x+4)(x-3)(x+1)^2$$



$$\begin{aligned} f(0) &= -1 \\ f(1) &= -3,3 \\ f(2) &= -4,5 \\ f(-2) &= -0,8 \\ f(-3) &= -2 \end{aligned}$$

$$8. f(x) = (x+2)(2x^2 - 3x + 1)$$

$$f(x) = (x+2)(2x-1)(x-1)$$



$$\begin{aligned} f(0) &= 2 \\ f(-1) &= 6 \end{aligned}$$