Math 1330
Homework 5 (2.2)

Problem 2.2.10 refers to problem 10 in Chapter 2, Section 2 in the online text. Record your answers to all the problems in the EMCF titled "**Homework 5**."

1. Problem 2.2.10 a

   A. yes
   B. no

2. Problem 2.2.20 a

   A. yes
   B. no

3. Problem 2.2.36

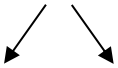
   A. Graph A
   B. Graph B
   C. Graph C
   D. Graph D
   E. Graph F, as in Frank

For numbers 4 – 7:


Rising left to right


Falling left to right


Both ends up


Both ends down

4. Problem 2.2.46 a

   A. x-intercepts at x = −6, 2, 5; y-intercept at y = 60; rising left to right
   B. x-intercepts at x = −6, 2, 5; y-intercept at y = −60; rising left to right
   C. x-intercepts at x = −6, 2, 5; y-intercept at y = –60; falling left to right
   D. x-intercepts at x = −6, 2, 5; y-intercept at y = 60; falling left to right
   E. None of the above

5. Problem 2.2.48 a

A.	x intercepts at x = 5, 3;	y intercept at y = 15;	rising left to right
B.	x intercepts at x = 5, 3;	y intercept at y = 45;	falling left to right
C.	x intercepts at x = 5, –3, 0;	y intercept at y = 45;	both ends down
D.	x intercepts at x = –5, –3;	y intercept at y = 15;	both ends up
E.	x intercepts at x = 5, –3;	y intercept at y = 45;	falling left to right

6. Problem 2.2.54 a

A.	x-intercept at x = 5/2;	no y-intercept ;	rising left to right
B.	x-intercepts at x = 5/2, 0;	y-intercept at y = 0;	both ends down
C.	x-intercept at x = 5/2;	no y-intercept;	both ends up
D.	x-intercepts at x = 5/2, 0;	y-intercept at y = 0;	both ends up
E.	None of the above		

7. Problem 2.2.72 a

A.	x-intercepts at x = −2, 2, 5;	y-intercept at y = 20;	rising left to right
B.	x-intercepts at x = 1, 4, 5;	y-intercept at y = 20;	rising left to right
C.	x-intercepts at x = −2, 2, 5;	y-intercept at y = 20;	falling left to right
D.	x-intercepts at x = 1, 4, 5;	y-intercept at y = 20;	falling left to right
E.	None of the above		

8. Problem 2.2.76

A. $P(x) = -x^2(x+8)$ B. $P(x) = -x^2(x-4)$

C. $P(x) = -x^2(x+4)$ D. $P(x) = -x^2(x-2)$

E. None of the above

9. Problem 2.2.78

A. $y = \frac{1}{12}(x-2)^2(x-1)^2(x+3)^2$

B. $y = -\frac{1}{12}(x-2)^2(x-1)^2(x+3)^2$

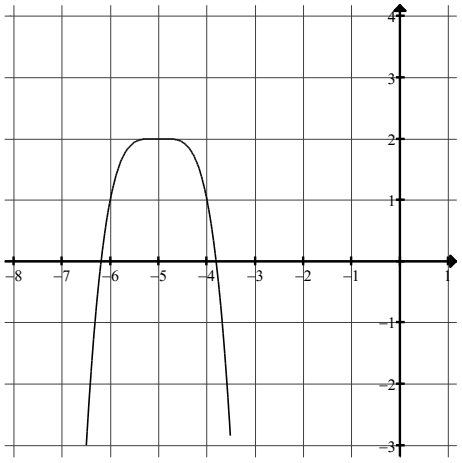
C. $y = -\frac{1}{12}(x+2)^2(x+1)^2(x-3)^2$

D. $y = \frac{1}{12}(x+2)^2(x+1)^2(x-3)^2$

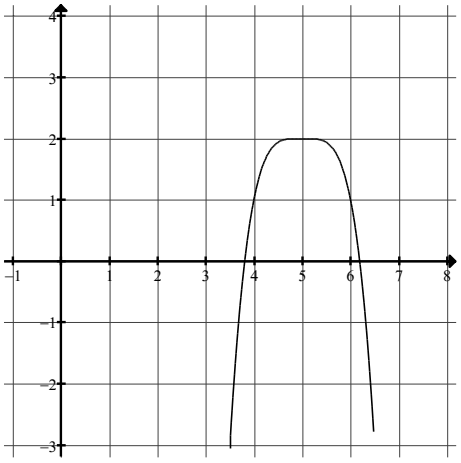
E. None of the above

10. Problem 2.2.84 Which of the following is the graph of the function?

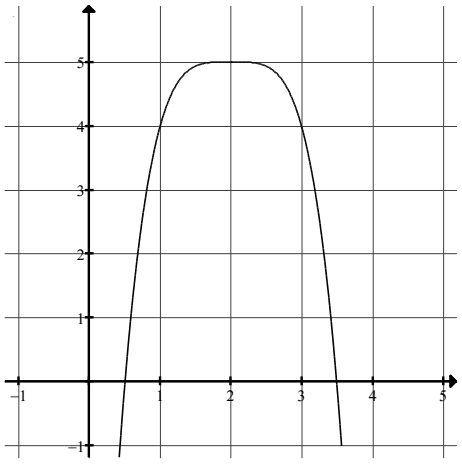
A.



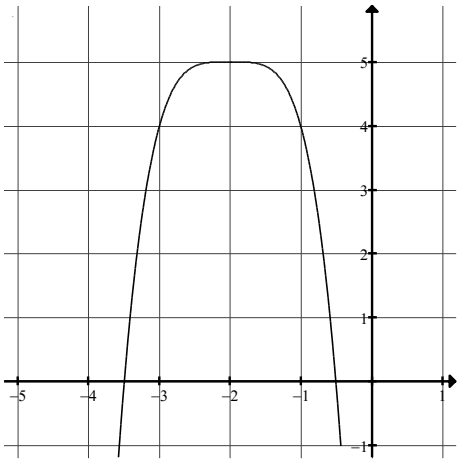
B.



C.



D.



E. None of the above

For numbers 11 – 15, choose the correct graph for the given function.

11. $f(x) = x^2(x-2)(x+2)$

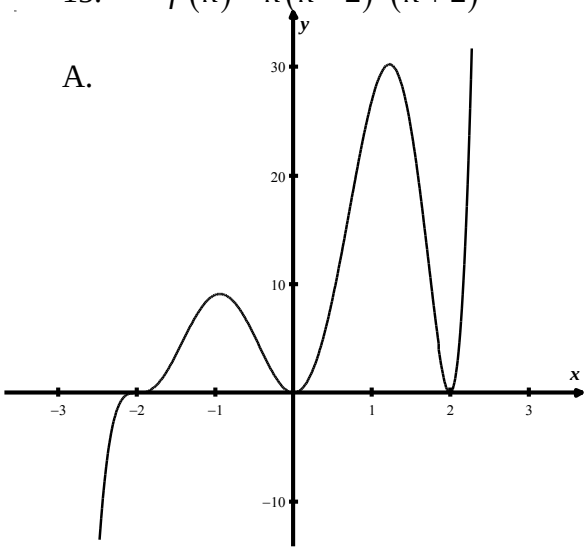
12. $f(x) = -x(x-2)(x+2)$

13. $f(x) = x(x-2)(x+2)$

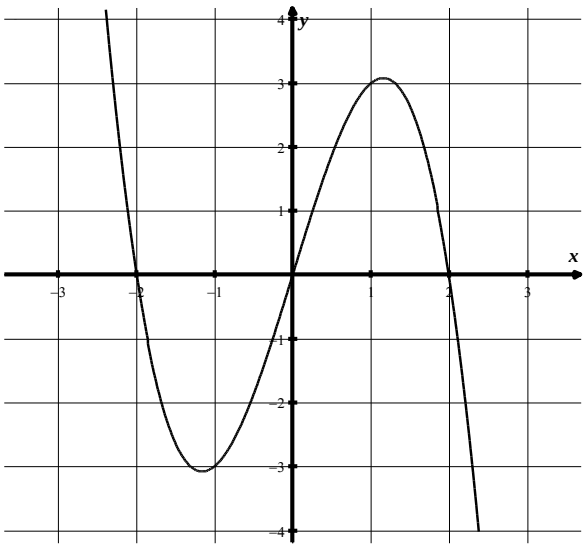
14. $f(x) = x^2(x-2)^2(x+2)$

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

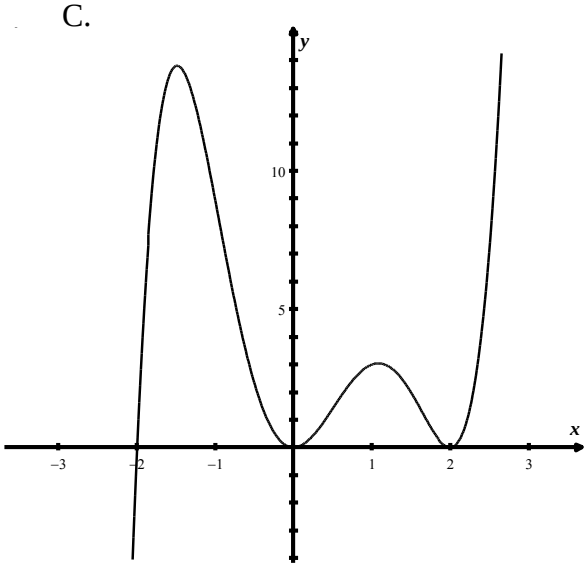
A.



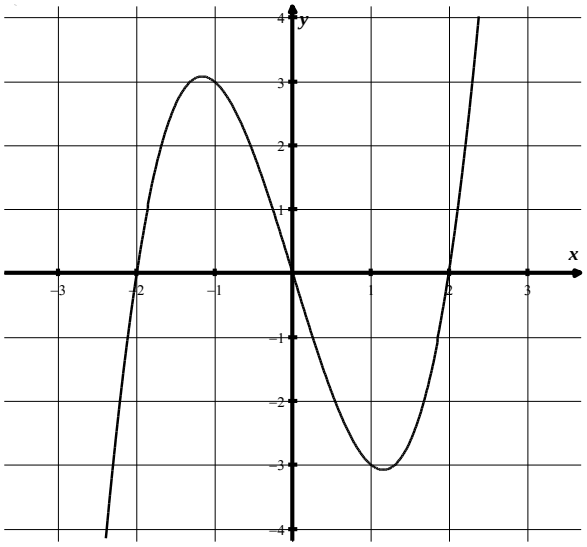
B.



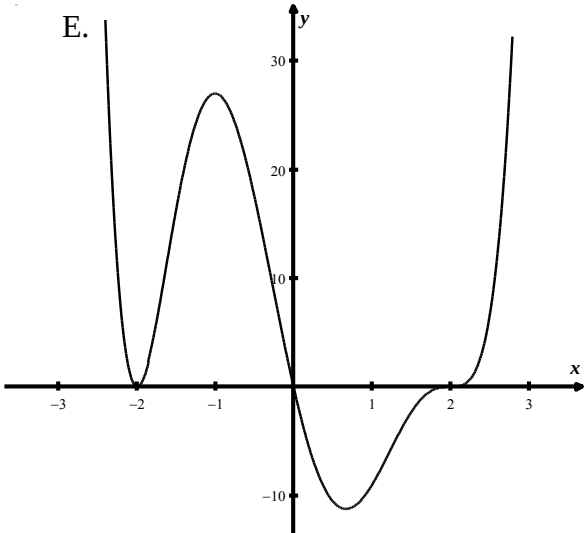
C.



D.



E.



F.