Chapter 7A Review – Answers

1. $(-4,5)$; $a(x)=-2x^2-16x-27$

2. $(2,4)$; $b(x)=3x^2-12x+16$

3. $c(x)=x(x+6)$; $x=0,-6$

4. $d(x)=(x+1)(x+4)$; $x=-1,-4$

5. $f(x)=(x+6)^2-25$; $(-6,-25)$

6. $g(x)=2(x-3)^2+10$; $(3,10)$

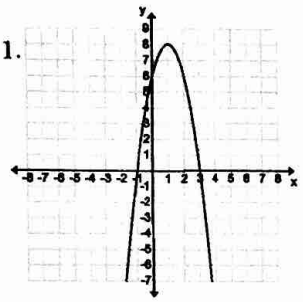
7. $h(x)=-2(x-3)^2+18$

8. $f(x)=\frac{1}{4}(x+2)(x-6)$

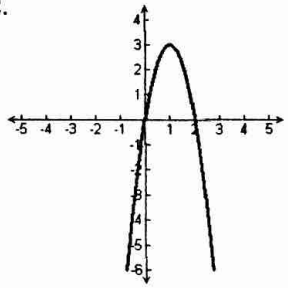
9. $f(x)=-\frac{1}{2}(x-4)^2+3$

10. $f(x)=4x^2+40x+95$

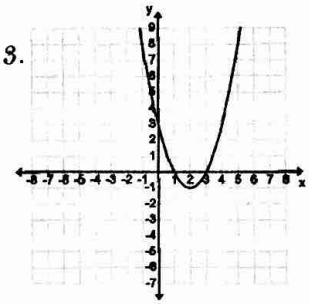
11.



12.



13.



14. -31; 2 non-real roots

15. 0; 1 real root

16. 46; 2 real roots

17. $x^2(2x+5)(x-6)$

18. $x^2(4x-3)(x+4)$

19. $x=0,-7,\frac{1}{3}$

20. $x=0,6,-\frac{2}{5}$

21. $x=-\frac{1}{2}\pm\frac{\sqrt{10}}{2}$

22. $x=\frac{1}{3}\pm\frac{2\sqrt{3}}{3}$

23. $f(x)=(x-20)^2-391$

24. $g(x)=6(x-1)^2-47$

25. $h(x)=-5(x-4)^2+280$

26. $j(x)=\left(x+\frac{9}{2}\right)^2-\frac{93}{4}$

27. $k(x)=-4(x+7)^2+199$

28. $m(x)=3\left(x+\frac{5}{2}\right)^2+\frac{5}{4}$

29. Degree: 2

30. Degree: 4

31. 1

32. $-i$

33. -1

34. $48-108i$

35. $-1+i$

36. $24+24i$

37. $44+32i$

38. $4-10i$

39. $-27+36i$

40. $-14+2i$

41. $15i$

42. $\frac{11}{10}+\frac{7}{10}i$

43. $-\frac{38}{65}-\frac{21}{65}i$