Set A factors

1. $y=(x-3)(x-3)$	2. $y=(x+2)(x+4)$	3. $y=(x+1)(3-x)$
4. $y=(x-2)(6-x)$	5. $y=(x-4)(x+2)$	6. $y=(x-4)(x-6)$

Set B Standard form of equation

7. $y=-x^2+2x+3$	8. $y=x^2+6x+8$	9. $y=x^2-6x+9$
10. $y=x^2-10x+24$	11. $y=x^2-2x-8$	12. $y=-x^2+8x-12$

Set C Complete Square/Vertex form

13. $y=(x-5)^2-1$	14. $y=-(x-4)^2+4$	15. $y=(x-1)^2-9$
16. $y=-(x-1)^2+4$	17. $y=(x+3)^2-1$	18. $y=(x-3)^2$

Set D y-intercept

19. $x=0, y=9$	20. $x=0, y=8$	21 $x=0, y=-8$
22. $x=0, y=-12$	23. $x=0, y=3$	24. $x=0, y=24$

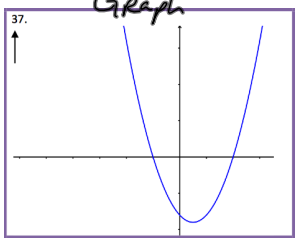
Set E Roots/Solutions

25. $y=0$, $x=-1$ or 3	26. $y=0$, $x=-2$ or $+4$	27. $y=0$, $x=2$ or 6
28. $y=0$, $x=4$ or 6	29. $y=0$, $x=3$	30. $y=0$, $x=-2$ or -4

Set F Vertex

31. local maximum at (1,4)	32. local minimum at (5,-1)	33. local minimum at (1,-9)
34. local minimum at (-3,-1)	35. local maximum at (4,4)	36. local minimum at (3,0)

Set G Graph

37.


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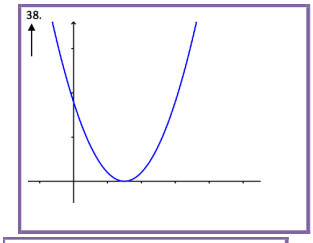
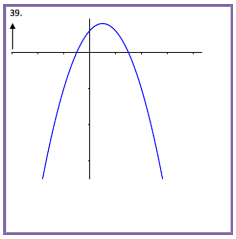


39.


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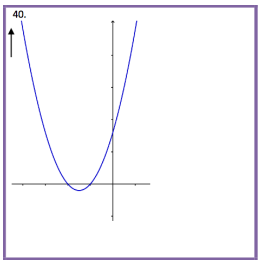
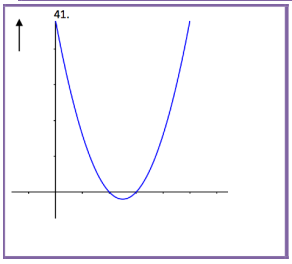
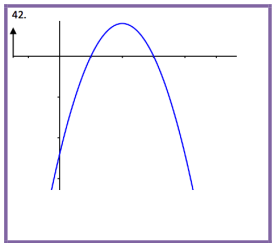


41.


42.


Expand to change to standard form

1. $y=(x-3)(x-3)$

$y=x^2-6x+9$

9. $y=x^2-6x+9$

2. $y=(x+2)(x+4)$

$y=x^2+4x+2x+8$

$y=x^2+6x+8$

8. $y=x^2+6x+8$

3. $y=(x+1)(3-x)$

$y=3x-x^2+3-x$

$y=-x^2+2x+3$

7. $y=-x^2+2x+3$

4. $y=(x-2)(6-x)$

$y=6x-x^2-12+2x$

$y=-x^2+6x-12$

12. $y=-x^2+8x-12$

5. $y=(x-4)(x+2)$

$y=x^2+2x-4x-8$

$y=x^2-2x-8$

11. $y=x^2-2x-8$

6. $y=(x-4)(x-6)$

$y=x^2-6x-4x+24$

$y=x^2-10x+24$

10. $y=x^2-10x+24$

Change to complete square form

7. $y=-x^2+2x+3$

	x	-1
x	x^2	$-x$
-1	$-x$	$+1$

$-1[x^2-2x-3]$

$-1[x^2-2x+1-1-3]$

$-1[(x-1)^2-4]$

$-1(x-1)^2+4$

14. $y=-(x-4)^2+4$

8. $y=x^2+6x+8$

	x	3
x	x^2	$3x$
3	$3x$	9

x^2+6x+8

$x^2+6x+9-9+8$

$(x+3)^2-1$

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

9. $y=x^2-6x+9$

	x	-3
x	x^2	$-3x$
-3	$-3x$	9

x^2-6x+9

$(x-3)^2$

18. $y=(x-3)^2$

11. $y=x^2-2x-8$

	x	-1
x	x^2	$-1x$
-1	$-1x$	$+1$

x^2-2x-8

$x^2-2x+1-1-8$

$(x-1)^2-9$

15. $y=(x-1)^2-9$

12. $y=-x^2+8x-12$

$-[x^2-8x+12]$

$-[(x-4)^2-16+12]$

$-[(x-4)^2-4]$

$-1(x-4)^2+4$

16. $y=-(x-1)^2+4$

10. $y=x^2-10x+24$

$(x-5)^2-25+24$

$(x-5)^2-1$

13. $y=(x-5)^2-1$

1. $y=(x-3)(x-3)$

29. $y=0,$ $x=3$

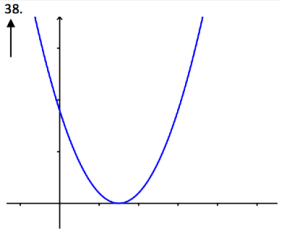
9. $y=x^2-6x+9$

19. $x=0, y=9$

18. $y=(x-3)^2$

36. local minimum at (3,0)

38.



2. $y=(x+2)(x+4)$

30. $y=0,$ $x=-2$ or -4

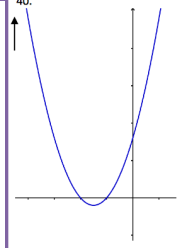
8. $y=x^2+6x+8$

20. $x=0, y=8$

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

34. local minimum at (-3,-1)

40.



3. $y=(x+1)(3-x)$

25. $y=0,$ $x=-1$ or 3

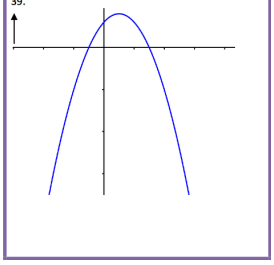
7. $y=-x^2+2x+3$

23. $x=0, y=3$

16. $y=-(x-1)^2+4$

31. local maximum at (1,4)

39.



4. $y=(x-2)(6-x)$

27. $y=0,$ $x=2$ or 6

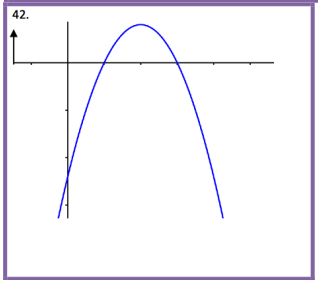
12. $y=-x^2+8x-12$

22. $x=0, y=-12$

14. $y=-(x-4)^2+4$

35. local maximum at (4,4)

42.



5. $y=(x-4)(x+2)$

26. $y=0,$ $x=-2$ or +4

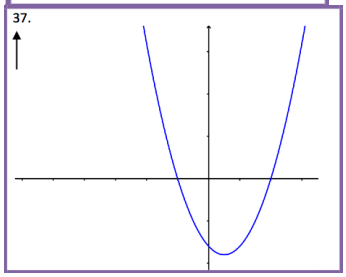
11. $y=x^2-2x-8$

21 $x=0, y=-8$

15. $y=(x-1)^2-9$

33. local minimum at (1,-9)

37.



6. $y=(x-4)(x-6)$

28. $y=0,$ $x=4$ or 6

10. $y=x^2-10x+24$

24. $x=0, y=24$

13. $y=(x-5)^2-1$

32. local minimum at (5,-1)

41.