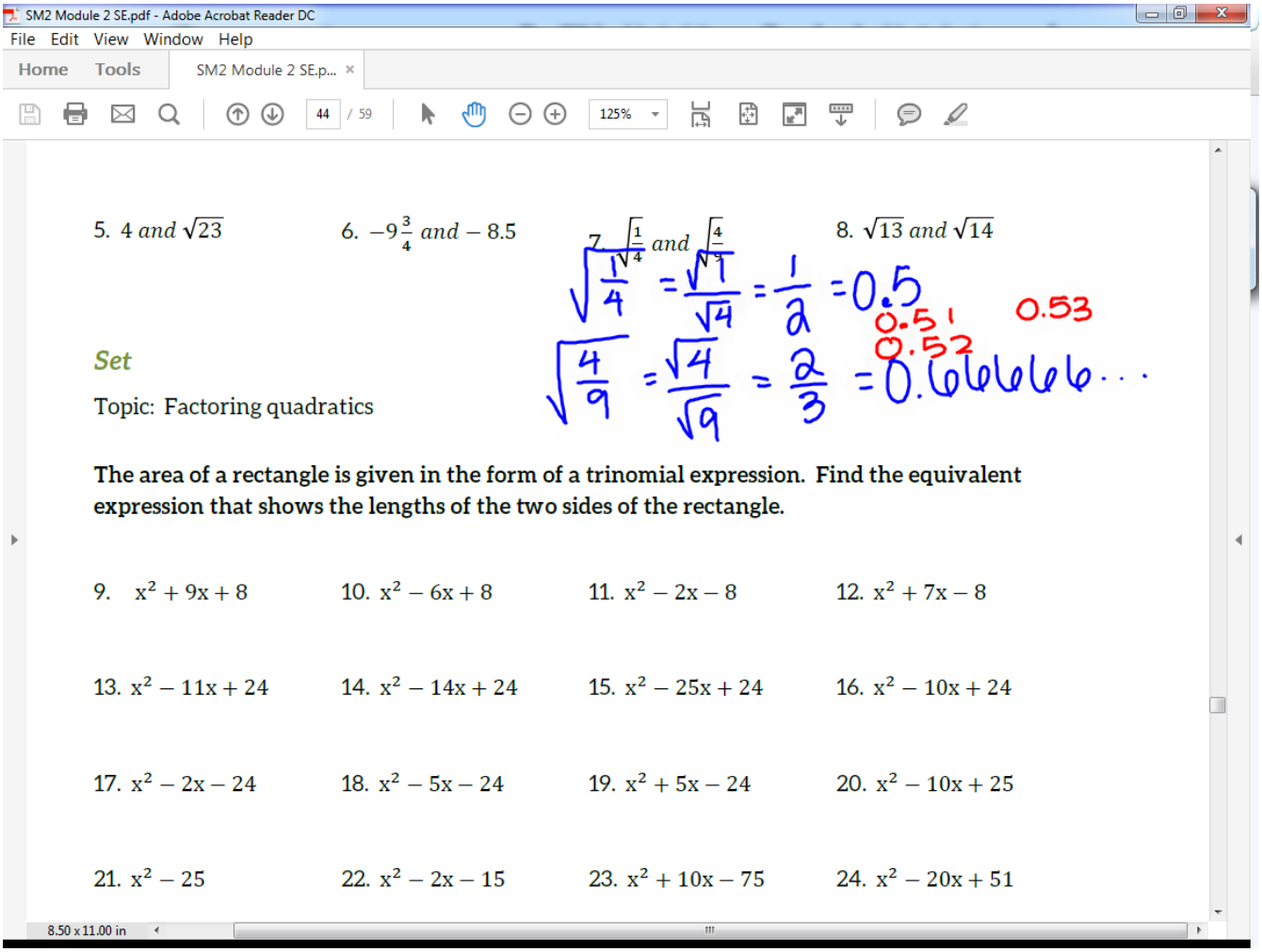
Questions on 2.7HW? 2.6 HW is due today...and we are quizzing.

Mar 28-10:02 AM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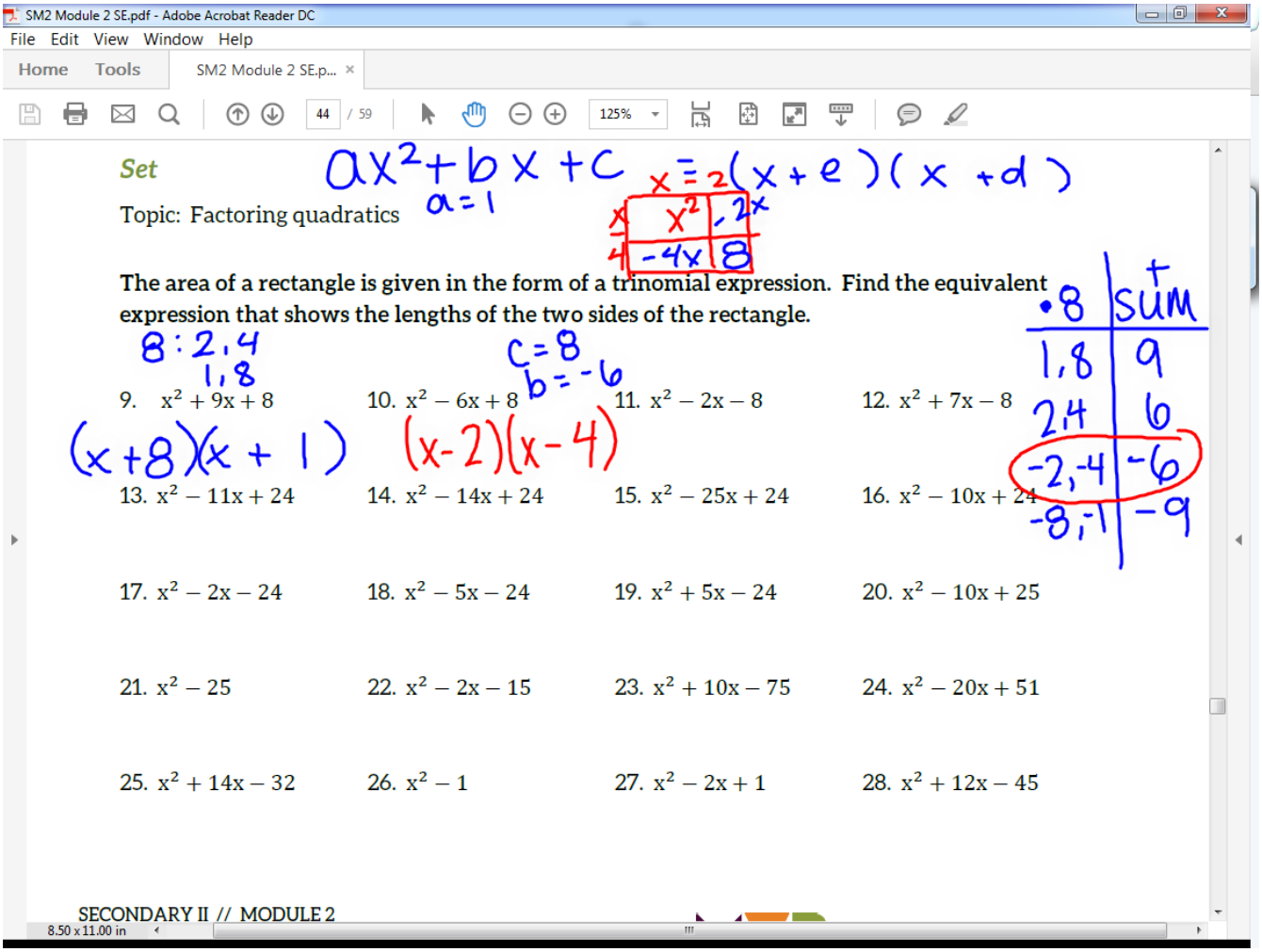
5. 4 and $\sqrt{23}$
6. $-9\frac{3}{4}$ and -8.5
7. $\sqrt{\frac{1}{4}}$ and $\sqrt{\frac{4}{9}}$
8. $\sqrt{13}$ and $\sqrt{14}$
$\sqrt{\frac{1}{4}} = \frac{\sqrt{1}}{\sqrt{4}} = \frac{1}{2} = 0.5$
$\sqrt{\frac{4}{9}} = \frac{\sqrt{4}}{\sqrt{9}} = \frac{2}{3} = 0.666666\ldots$
0.51
0.52
0.53
Set
Topic: Factoring quadratics
The area of a rectangle is given in the form of a trinomial expression. Find the equivalent expression that shows the lengths of the two sides of the rectangle.
9. $x^2 + 9x + 8$
10. $x^2 - 6x + 8$
11. $x^2 - 2x - 8$
12. $x^2 + 7x - 8$
13. $x^2 - 11x + 24$
14. $x^2 - 14x + 24$
15. $x^2 - 25x + 24$
16. $x^2 - 10x + 24$
17. $x^2 - 2x - 24$
18. $x^2 - 5x - 24$
19. $x^2 + 5x - 24$
20. $x^2 - 10x + 25$
21. $x^2 - 25$
22. $x^2 - 2x - 15$
23. $x^2 + 10x - 75$
24. $x^2 - 20x + 51$
8.50 x 11.00 in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Set
Topic: Factoring quadratics
ax^2+bx+c
$a=1$
$x=2(x+e)(x+d)$
x^2 $2x$
$-4x$ 8
The area of a rectangle is given in the form of a trinomial expression. Find the equivalent expression that shows the lengths of the two sides of the rectangle.
8: 2,4
1,8
$c=8$
$b=-6$
9. x^2+9x+8
10. x^2-6x+8
11. x^2-2x-8
12. x^2+7x-8
$(x+8)(x+1)$
$(x-2)(x-4)$
13. $x^2-11x+24$
14. $x^2-14x+24$
15. $x^2-25x+24$
16. $x^2-10x+24$
17. $x^2-2x-24$
18. $x^2-5x-24$
19. $x^2+5x-24$
20. $x^2-10x+25$
21. x^2-25
22. $x^2-2x-15$
23. $x^2+10x-75$
24. $x^2-20x+51$
25. $x^2+14x-32$
26. x^2-1
27. x^2-2x+1
28. $x^2+12x-45$
• 8 | + sum
1,8 | 9
2,4 | 6
-2,-4 | -6
-8,-1 | -9
SECONDARY II // MODULE 2
8.50 x 11.00 in

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Set

ax^2+bx+c $x=_2(x+e)(x+d)$

Topic: Factoring quadratics

$a=1$

	x^2	$2x$
x		
4	$-4x$	8

The area of a rectangle is given in the form of a trinomial expression. Find the equivalent expression that shows the lengths of the two sides of the rectangle.

• 8	+ sum
1, 8	9
2, 4	6
-2, -4	-6
-8, -1	-9

8: 2, 4
1, 8

$c=8$ $b=-6$

9. x^2+9x+8 $(x+8)(x+1)$

10. x^2-6x+8 $(x-2)(x-4)$

11. x^2-2x-8 $(x+2)(x-4)$

12. x^2+7x-8 $(x-1)(x+8)$

13. $x^2-11x+24$ $(x\ )(x\ )$

14. $x^2-14x+24$ $(x\ )(x\ )$

15. $x^2-25x+24$ $(x\ )(x\ )$

16. $x^2-10x+24$

17. $x^2-2x-24$

18. $x^2-5x-24$

19. $x^2+5x-24$

20. $x^2-10x+25$

• -8	sum
-1, 8	7
1, -8	-7
-2, 4	2
2, -4	-2

21. x^2-25

22. $x^2-2x-15$

23. $x^2+10x-75$

24. $x^2-20x+51$

25. $x^2+14x-32$

26. x^2-1

27. x^2-2x+1

28. $x^2+12x-45$

x^2+0x-1

$(x+1)(x-1)$

SECONDARY II // MODULE 2

8.50 x 11.00 in

• -1	sum
-1, 1	0

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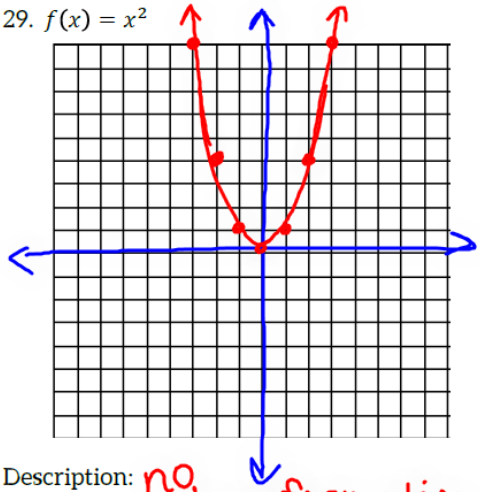
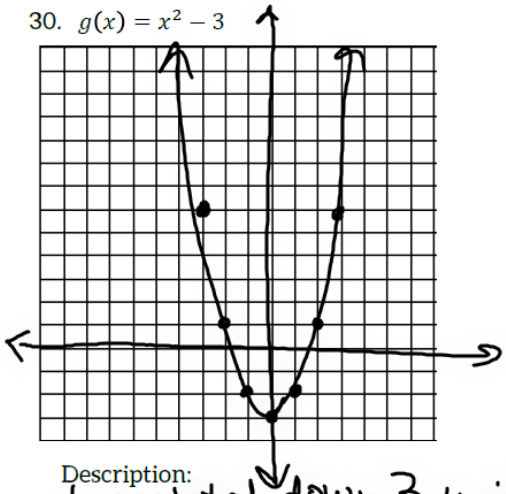
Graph each parabola. Include the vertex and at least 3 accurate points on each side of the axis of symmetry. Then describe the transformation in words.

29. $f(x) = x^2$



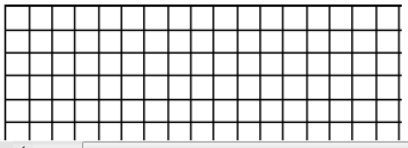
Description: no transformation

30. $g(x) = x^2 - 3$

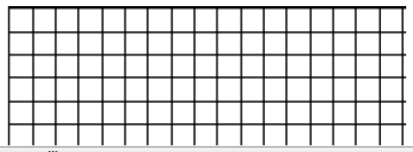


Description: translated down 3 units

31. $h(x) = (x - 2)^2$



32. $b(x) = -(x + 1)^2 + 4$



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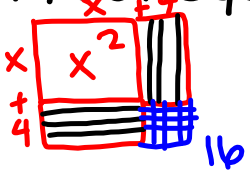
Quadratics Quiz #3: Completing the Square

The following quadratic function,

$f(x) = x^2 + 8x + 13$ is not a perfect square.

Answer the following:



1) What must be added or subtracted to make it a perfect square? (3)

$a(x-h)^2+k=0$

2) What is the vertex form for the function after you have completed the square?

$x^2+8x+13=0$

$+3 \quad +3$

$x^2+8x+16=3$

$(x+4)(x+4)=3$

$-3 \quad -3$

$(x+4)^2-3=0$

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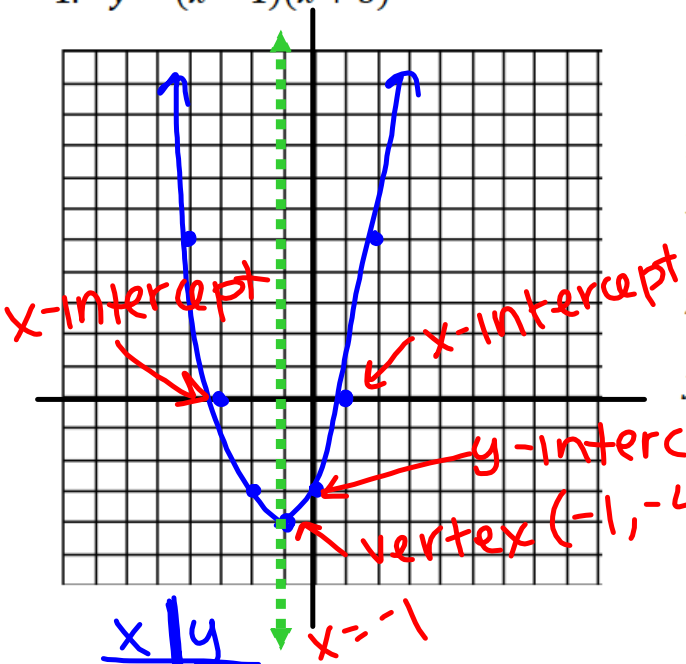
2.8 Lining Up Quadratics

A Practice Understanding Task

Graph each function and find the vertex, the y-intercept and the x-intercepts. Be sure to properly write the intercepts as points.

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



Line of Symmetry $x = -1$

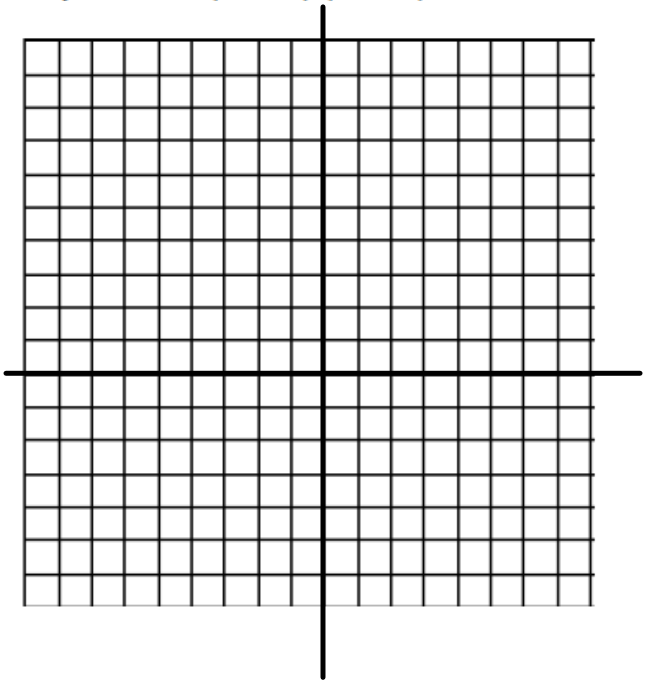
Vertex $(-1,-4)$

x-intercepts $(-3,0)$ $(1,0)$

y-intercept $(0,-3)$

x	y
-4	5
-3	0
-2	3
-1	-4
1	0
2	5

2. $f(x) = 2(x-2)(x-6)$



Line of Symmetry _____

Vertex _____

x-intercepts _____ _____

y-intercept _____

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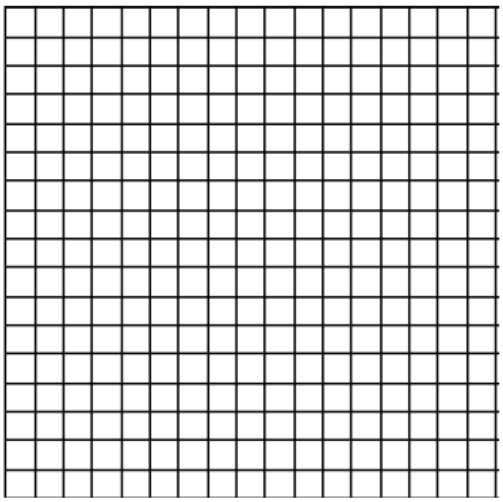
3. $g(x) = -x(x + 4)$



Line of Symmetry _____

Vertex _____

x-intercepts _____ _____

y-intercept _____

4. Based on these examples, how can you use a quadratic function in factored form to:
   a. Find the line of symmetry of the parabola?

   b. Find the vertex of the parabola?

   c. Find the x-intercepts of the parabola?

   d. Find the y-intercept of the parabola?

   e. Find the vertical stretch?

Homework

Finish 2.8 "Ready, Set, Go"

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