Week 7 Activities

1. Use GSP, WinGeom or the graphing calculator to convert the following Standard form to Factored form,
$$y = 3x^2 - 3x - 6$$

2. Use GSP, WinGeom or the graphing calculator to convert the following Standard form to Vertex form,
$$y = 3x^2 - 3x - 6$$

3. Use GSP, WinGeom or the graphing calculator to convert the following Facotred form to Vertex form,
$$y = 3(x - 2)(x - 7)$$

4. Use GSP, WinGeom or the graphing calculator to convert the following Vertex form to Facotred form,
$$y = -7(x - 3)^2 + 5$$
Some of the numbers may get a little messy so if they are not nice you can use approximations, that is, use 1.414213562 instead of $\sqrt{2}$.

5. Use algebra to convert any one of the following Standard form to Factored form,
$$y = 3x^2 - 3x - 6$$

6. Use algebra to convert any one of the following Standard form to Vertex form,
$$y = 3x^2 - 3x - 6$$

7. Use algebra to convert any one of the following Facotred form to Vertex form,
$$y = 3(x - 2)(x - 7)$$

8. Use algebra to convert any one of the following Vertex form to Facotred form,
$$y = -7(x - 3)^2 + 5$$
Some of the numbers may get a little messy so if they are not nice you can use approximations, that is, use 1.414213562 instead of $\sqrt{2}$.

9. Do Exercise 2.2.1 or 2.2.2 from the text (pages 100–104).

10. Do Exercise 2.2.3 or 2.2.4 from the text (page 104).

11. Do Exercise 2.2.5 from the text (page 104).