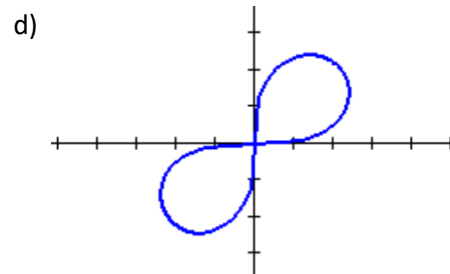
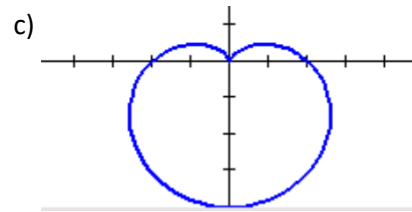
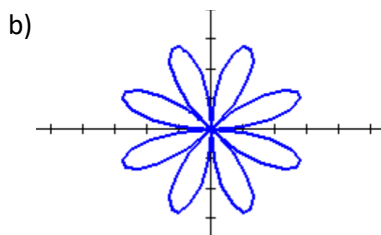
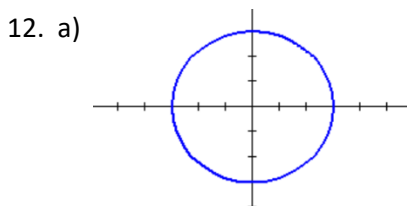
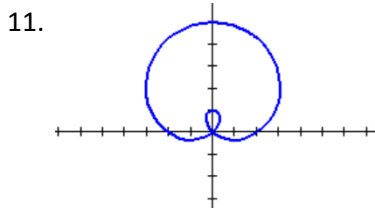


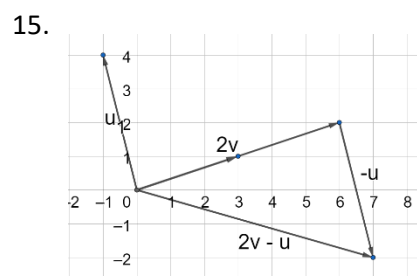
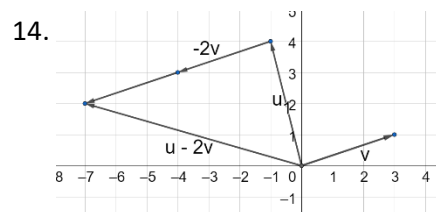
## Unit 11 Review Key

## Secondary 3 Honors

1. (2, 4) and (-2, 4)
2. (1, 4) and (-4, -1)
3. (2, 0), (-2, 0), ( $\sqrt{3}$ , -1), ( $-\sqrt{3}$ , -1)
4. 17 and 5
5. a)  $x = (230 \cos 25^\circ)t$   
 $y = -16t^2 + (230 \sin 25^\circ)t$ 
  - b) 86.01 feet
  - c) 6.08 sec
  - d) horiz = 270.99 feet / vert = 99.32 feet
  - e) 65.8 feet away from where it was hit.
6. a)  $x = (80 \cos 30^\circ)t$   
 $y = -16t^2 + (80 \sin 30^\circ)t + 30$ 
  - b) No (Ball is 32.91 feet high at that point)
7. a) ( $-\sqrt{3}$ , -1)
  - b) ( $\frac{\sqrt{2}}{2}$ ,  $\frac{\sqrt{2}}{2}$ )
  - c) ( $\frac{3}{2}$ ,  $\frac{3\sqrt{3}}{2}$ )
  - d) (0, 0)
8. a) ( $\sqrt{2}$ ,  $45^\circ$ )
  - b) ( $3\sqrt{2}$ ,  $225^\circ$ )
  - c) (2,  $300^\circ$ )
  - d) (5,  $270^\circ$ )
9. a)  $r^2 = 16$ 
  - b)  $r \sin \theta = 6$
  - c)  $r \cos \theta = 5$
  - d)  $r^2 = 6r \sin \theta$
10. a)  $x^2 + y^2 = 16$ 
  - b)  $x^2 + y^2 = 3y$
  - c)  $x^2 + y^2 = 5x$



13. a)  $SA = 125.25 \text{ cm}^2$   
 $V = 64 \text{ cm}^3$ 
  - b)  $SA = 44 \text{ ft}^2$   
 $V = 13.27 \text{ ft}^3$



16. a)  $\langle -1, 6 \rangle$  b)  $\langle -9, -2 \rangle$  c)  $\langle -15, 6 \rangle$  d)  $\langle -17, 18 \rangle$
17.  $\langle \frac{5\sqrt{29}}{29}, \frac{-2\sqrt{29}}{29} \rangle$
18. -20
19. -40
20.  $32.91^\circ$
21.  $\langle \frac{18\sqrt{34}}{17}, \frac{-30\sqrt{34}}{17} \rangle$