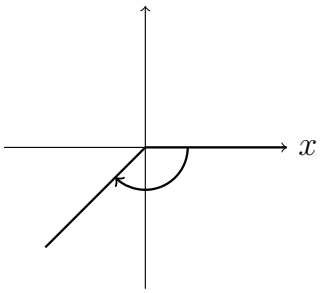
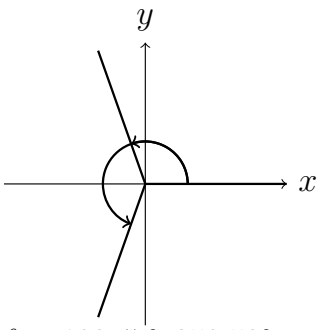
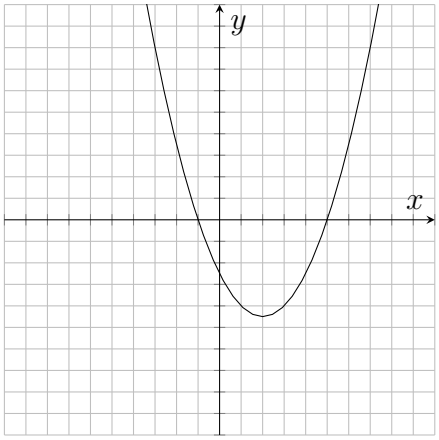
1(a) C. 1(b) B. 1(c) B.
1(d) D. 1(e) C. 1(f) B.
2. D. 3. B. 4. B. 5. C.
6. B. 7. D. 8. D. 9. A.
10(a) B. 10(b) A.
11(a) F. 11(b) F.
11(c) F. 11(d) T.
12. $x^{\frac{7}{6}} = \sqrt[6]{x^7}$ 13. $x = 9$. 14. $x = 32$.
15. 4038 16. $-11\pi/6$
17.



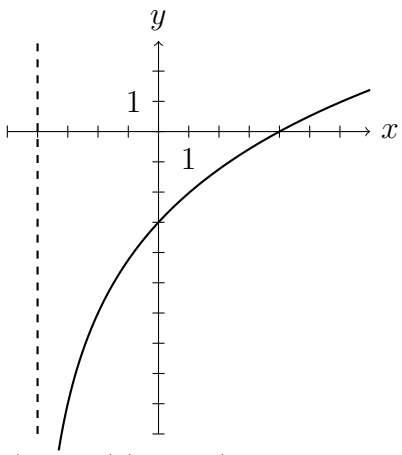
18. $\sin(-3\pi/4) = -\frac{1}{\sqrt{2}} = -\frac{\sqrt{2}}{2}$
19.



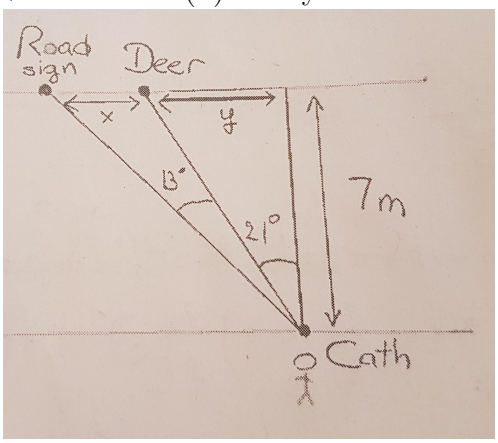
20. $\theta = 109.47°, 250.53°$
21(a) y-int: $(0, -5/2)$.
x-int's: $(5, 0)$ and $(-1, 0)$.
21(b) $y = \frac{1}{2}(x-2)^2 - \frac{9}{2}$, Vertex at $(2, -\frac{9}{9})$
21(c)



22. $(x-2)(x+2)(2x-3)$
23. $(3x+2)(9x^2-6x+4)$
24. $\dfrac{8x+6}{5(x-2)(x+2)}$
25. $f^{-1}(x) = \dfrac{3x}{1+2x}$
26. $\dfrac{x+2}{2x}$
27. $[-3, 0) \cup (\frac{1}{4}, 1]$
28(a) $u = \frac{1}{4},\ 2$
28(b) $x = \pm\frac{1}{2}, \pm\sqrt{2}$
28(c) $x = \ln\left(\frac{1}{4}\right), \ln 2$
29(a) y-int: $(0, -3)$, x-int: $(4, 0)$.
29(b) Vertical Asymptote at $x = -4$.
29(c)



30(a) $(3x+1)(3x-2)$
30(b) $x = 2/3$.
31. $\theta \approx 36.80°$.
32. 3.7m
33(a) 5m quad 33(b) 9m 33(c) 5 seconds.
34(a) \$2874.52 34(b) 6.73 years.
35(a)



35(b) $x \approx 2.03$m