

1. $A(h) = \frac{h^2\sqrt{3}}{8}$

2. $T(n) = \frac{11n}{36}$

3. $P(n) = 6n$

4. $A(h) = \frac{5}{8}\pi h^2$

5. $S(d) = 1.5d$

6. $V(w) = \frac{3w - 2w^3}{4}$

7.

a. $C(t) = \pi t$

b. $A(t) = \frac{\pi}{4}t^2$

8.

a. $C(w) = \frac{8w^3 + 192}{w}$

b. \$126

9. $D(t) = \sqrt{(AC)^2 + (BC)^2} = \sqrt{400t^2 - 80t + 20}$

a. 2:06 PM

b. 4 km

10. a. $V(h) = \frac{\pi}{48}h^3$

b. $h(t) = \sqrt[3]{\frac{240t}{\pi}}$

11. $d(x) = \sqrt{5x^2 - 40x + 100}$

12. a. $P(x) = -2x^2 + 4x + 18$

b. $0 < x < 3$

c. 1

13. a. $t(x) = \sqrt{2500 + x^2} + \frac{1}{3}(100-x)$

b. About 80.5 seconds