

Calculus — Problem Set 5

2. \$ 9 million

4. $x \approx -0.4656$

6. 0.8727

8. $\frac{8}{3}$

10. $\sin x \cos x$

12. If a polygon does not have four sides, then the polygon is not a triangle.

14. $x - 2 = 0$

16. $y = x^4 - 1$

18. $5 + 2\sqrt{6}$

20. 153

22. $24\pi \text{ cm}^2$
 $\approx 75.3982 \text{ cm}^2$

24. (1, 7)

Calculus — Problem Set 6

2. $V = 25x - \frac{1}{2}x^3$

4. (-2.8719, 0.0566)
(-0.8124, 0.4438)
(0.9536, 2.5950)

6. B

8. C

10. Domain: $\{x \in R \mid x \geq 1\}$
Range: $\{y \in R \mid y \geq 0\}$

12. $y \approx 0.6478$
 $y \approx 1.0987$

14. $\frac{\sqrt{3}}{2}$

16. $\csc x$

18. Converse: If I live in Oklahoma, then I live in Norman.
Inverse: If I do not live in Norman, then I do not live in Oklahoma.

20. 9

22. $5 - 2\sqrt{6}$

24. A