

PLEASE  
EMAIL ME WITH  
ANY CORRECTIONS!

Answer List

1.  $x = -2, x = -4, (-5, 3)(1, 2)(2, 3), x = 6$

2. d

3. d

4. a

5. e

6. a

7. e

8. b

9. d

10. e

11. b

12. b

13. 5, -4

14. a

15. b

16. b

17. c

18. b

19. d

20.  $SA = 2\pi rh + 2\pi r^2$

21. c

22.

$C = 2\pi K r h + 4\pi K r^2$  (K is a constant)

$C = 44k/r + 4\pi K r^2$

$r = 3\sqrt{11/2\pi} \approx 1.205 \text{ in.}$

a) \$400.00

b) \$10,000.00

c) \$148.01

d) \$150.00

e) SELL MORE UNITS.  
MR = 400 MC = 150.

Revenue increases more steeply.

f) 243,541 units  
\$19,326.335

g)  $R' = C' \quad 4 = 4x^2 - 12x + 9.5$   
 $4x^2 - 12x + 5.5 = 0$

$150 \pm 25\sqrt{14}$  units

h)  $P'' = -8x + 12$

$P''(2.435) = -7.48 < 0$

CONCAVE DOWN  $\rightarrow$  MAXIMUM 

i) 244 UNITS \$19,325.55 PROFIT