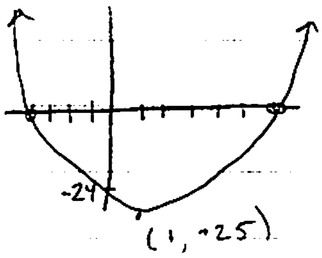
Review assignment Answers

① $y = x^2 - 2x - 24$

$y = (x-6)(x+4)$



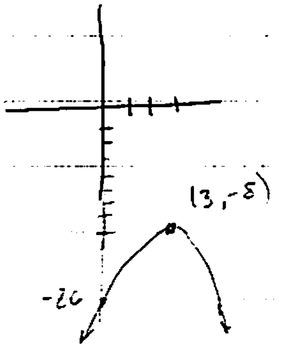
$\frac{-4+6}{2} = \frac{2}{2} = 1$

$y(1) = (-5)(5) = -25$

1. ℝ 2. $[-25, \infty)$ 3. 2 4. $(6,0)(-4,0)$
5. $(0,-24)$ 6. $(1,\infty)$ 7. $(-\infty,1)$
8. Up, up, up 9. Below 10. Y
11 N 12. None 13. Local & Abs
Min of -25 @ $x=1$. 14.
$x \to \infty$ $y \to \infty$, $x \to -\infty$ $y \to \infty$
15. 1

② $y = -2(x-3)^2 - 8$

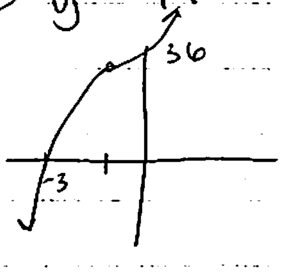
$-2(9)-8$
$-18-8$
-26



1. ℝ 2. $(-\infty, -8]$ 3. 2 4. None
5. $(0,-26)$ 6 $(-\infty, 3)$ 7. $(3, \infty)$ 8. Down,
Down, Down 9. Above 10. Y 11. NO
12. Local & Abs max of -8 @ $x = 3$ 13. None
14 $x \to \infty$ $y \to -\infty$ $x \to -\infty$ $y \to -\infty$
15. 1

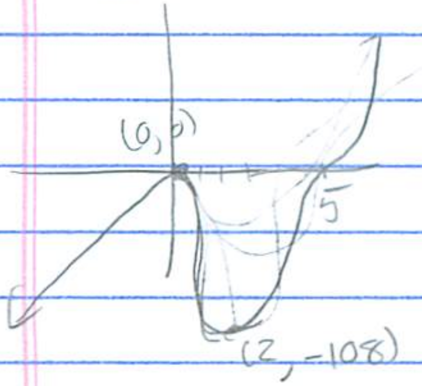
$\frac{32}{4} = (x+1)^3$ ③ $y = 4(x+1)^3 + 32$

$8 = (x+1)^3$
$2 = x+1$
$3 = x$



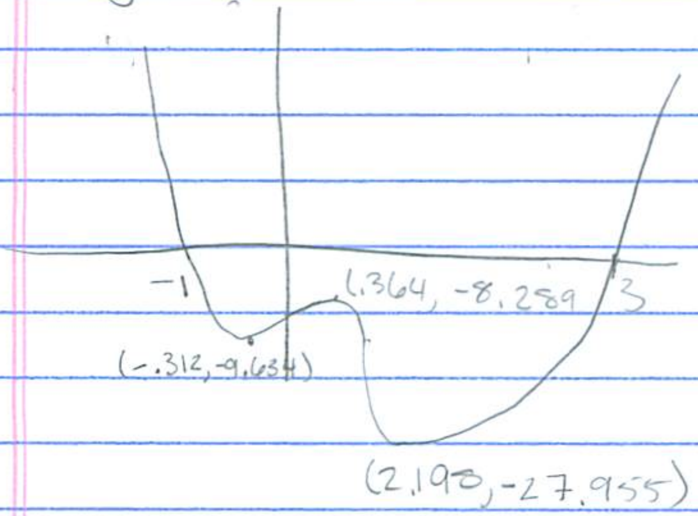
1. ℝ 2. ℝ 3. 3 4. $(-3,0)$ 5. $(0,36)$
6. ℝ 7. ∅ 8. Down, up, up 9. None
10. Yes 11. Yes 12. None 13. None
14 $x \to \infty$ $y \to \infty$ $x \to -\infty$ $y \to -\infty$ 15. 2

4. $y=(x-5)^3x^2$



1. ℝ 2. ℝ 3. 5 4 (0,0)(5,0)
5. (0,0) 6 $(-\infty,0)\cup(2\ \infty)$
7. (0,2) 8. Down, Down, Down?
9. None 10. Y 11 No 12
Local max of 0 @ x = 0
13 Local min of -108 @ x = 2
14. $x\to\infty$ $y\to\infty$ $x\to-\infty$ $y\to-\infty$
15. 4

5. $y=3x^4-9x^3+3x-9$



1. ℝ 2. $[-27.955,\infty)$
3. 4 4. (-1,0)(3,0)
5. (0,-9) 6. $(-.312,.364)\cup(2.198,\infty)$
7. $(-\infty,-.312)\cup(.364,2.198)$
8. Up, switch?, Up
9. Below 10. Yes 11. No
12. Local max of -8.289 @
x = .364 13. Local min
of -9.634 @ x = -.312 Local &
Abs min of -27.955 @ 2.198
14. $x\to\infty$ $y\to\infty$ $x\to-\infty$ $y\to\infty$
15. 3