

MATH 3200 3.1 EXTRA PRACTICE Solns

1 a) NOT (RATIONAL) b) YES
Degree = 2

c) Yes d) No
Degree 6 (Radical)

2. a) -1, 3 b) 9, 5 c) 3, 1 d) -2, 9

3. a) Odd b) EVEN c) Odd d) EVEN
Neither MIN Neither MAX

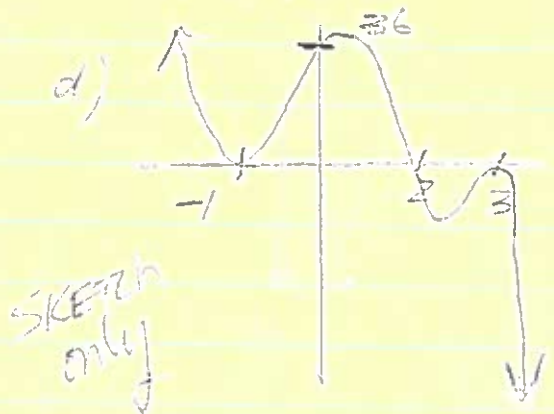
4. a) 2 b) 2 c) 4 d) 4
 $x \in \mathbb{R}$ $x \in \mathbb{R}$ $x \in \mathbb{R}$ $x \in \mathbb{R}$
 $y \in \mathbb{R}$ $y \leq 9$ $y \geq -12.25$ $y \in \mathbb{R}$

5. a) 1, 2 OR 3 b) 0, 1, 2, 3, 4 c) 0, 1, 2, 3, 4 d) 0, 1, 2
(0, 3) (0, 5) (0, 1) (0, 0)

6. a) QUARTIC - EVEN b) QUINTIC - ODD
DECREASE THRU Q4 INCREASE THRU Q1
0, 1, 2, 3, 4 1, 2, 3
MAX Neither
(0, -5) (0, 12)

7. a) Decrease Thru Q4 b) 1, 2, 3, 4, 5

c) $y = at^2 = (-2)(1)^2 = (-2)(-3)^2$
 $= (0, +36)$



9. $h = -4.9t^2 + 60$

a) Degree = 2

b) -4.9 and constant 60

constant represents initial height
of object

c) $[0, 60]$
ground → initial height

d) Decrease Thru Q4.