

### Math 116 Practice Exam 3 Answers

1) a)  $y = 2 - 2x^2$

b)  $y = 2 - 2x^2$

2)  $y - 1 = -\frac{\pi}{8}(x - 3)$

3) a)  $c = 6$

b)  $R = \frac{1}{4}$

4)  $[23/4, 25/4]$

5)  $\sum_{n=0}^{\infty} \frac{5 \cdot (-1)^n x^{2n+1}}{n!}$

6) a) No, thanks,

b)  $\theta = 0, \pi/2$

c)  $\frac{1}{2} \int_0^{\pi/2} (\cos^2(\theta) - (1 - \sin(\theta))^2) d\theta$