

## Day 6 Answers

### Graphs #1

- a.  $f(-6) = 3$  &  $f(5) = 10 - 2\pi$
- b.  $[-6, -2]$  &  $(2, 5)$
- c.  $7 - 2\pi$
- d.  $f''(-5) = -\frac{1}{2}$  &  $f''(3) = dne$

### Graphs #2

- a. neither
- b. Yes... because
- c.  $AbsMin = -8$   $AbsMax = 8$
- d.  $[-4, 2]$  &  $[10, 12]$

### Graphs #3

- a.  $g(3) = 9$
- b.  $(-5, -3)$  &  $(0, 2)$
- c.  $\frac{1}{3}$
- d. 6

### Graphs #4

- a.  $g(2) = -\frac{1}{4}$  &  $g(-2) = \frac{\pi}{2} - \frac{3}{2}$
- b.  $g'(-3) = 2$  &  $g''(-3) = 1$
- c.  $g'(x)$  changes from pos to negative at  $x = -1$  therefore Max  
 $g'(x)$  changes from neg to pos at  $x = 1$  therefore Min
- d.  $x = -2, 0,$  &  $1$  because  $g''(x)$  changes signs

### Graphs #5

- a.  $g(-3) = -6 - \frac{9\pi}{4}$  &  $g'(x) = 2 + f(x)$  &  $g'(-3) = 2$
- b.  $x = \frac{5}{2}$
- c.  $x = 0$
- d.  $-\frac{2}{7}$

### Multiple Choice

- 51. C
- 52. B
- 53. C
- 54. A
- 55. B
- 56. B
- 57. C
- 58. C
- 59. D
- 60. D