

Practice 01

Find the average rate of change of the function over the given interval.

1)  $y = x^2 + 4x$ ,  $[3, 8]$

Find the slope of the curve at the given point P and an equation of the tangent line at P.

2)  $y = x^2 + 5x$ ,  $P(4, 36)$

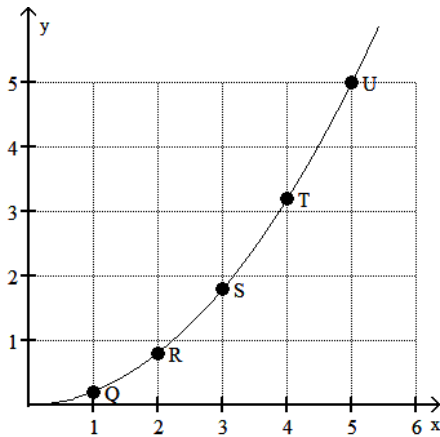
3)  $y = x^3 - 2x^2 + 4$ ,  $P(3, 13)$

4)  $y = -4 - x^3$ ,  $(1, -5)$

Use the slopes of UQ, UR, US, and UT to estimate the rate of change of y at the specified value of x.

5)  $x = 5$

5) \_\_\_\_\_



A) 2

B) 0

C) 5

D) 1

Use the table to estimate the rate of change of y at the specified value of x.

6)  $x = 1$ .

6) \_\_\_\_\_

x	y
0	0
0.2	0.02
0.4	0.08
0.6	0.18
0.8	0.32
1.0	0.5
1.2	0.72
1.4	0.98

A) 2

B) 1.5

C) 1

D) 0.5

Answer Key

Testname: PRACTICE01

- 1) 15
- 2) slope is 13;  $y = 13x - 16$
- 3) slope is 15;  $y = 15x - 32$
- 4) slope is -3;  $y = -3x - 2$
- 5) A
- 6) C