

Approximating area with rectangles

Date _____ Period _____

For each problem, approximate the area under the curve over the given interval using 4 left endpoint rectangles.

1) $y = \frac{x^2}{2} - x + 1; [1, 5]$

9

2) $y = -\frac{x^2}{2} + 6; [-2, 2]$

21

For each problem, approximate the area under the curve over the given interval using 5 right endpoint rectangles.

3) $y = -\frac{x^2}{2} + 6; [-3, 2]$

25

4) $y = -x^2 + 13; [-2, 3]$

50

For each problem, approximate the area under the curve over the given interval using 4 midpoint rectangles.

5) $y = -x + 6; [-6, -2]$

40

6) $y = -\frac{x}{2} + 4; [3, 7]$

6

For each problem, approximate the area under the curve over the given interval using 4 trapezoids.

7) $y = -x^2 + 2x + 10; [0, 4]$

34

8) $y = \frac{x^2}{2} + x + 2; [-5, 3]$

36