Calculus Practice 3.2B2: Riemann Sums 2b

For each problem, approximate the area under the curve over the given interval using 4 right endpoint rectangles. You may use the provided graph to sketch the curve and rectangles.

1) \( y = x + 6; \ [1, 3] \)

2) \( y = -x + 5; \ [-1, 1] \)

3) \( y = x + 5; \ [2, 4] \)

4) \( y = -\frac{x}{2} + 4; \ [-7, -5] \)

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

6) \( y = x^2 + 2x + 4; \ [0, 2] \)
7) \( y = -x^2 + 11; [-2, 0] \)

8) \( y = x^2 + 2x + 2; [-3, -1] \)

9) \( y = -\frac{4}{x}; [-4, -2] \)

10) \( y = -\frac{4}{x}; [-3, -1] \)

11) \( y = -\frac{3}{x}; [-5, -1] \)

12) \( y = \frac{2}{x}; [2, 4] \)
Answers to Calculus Practice 3.2B2: Riemann Sums 2b

1) \(\frac{33}{2} = 16.5\)
2) \(\frac{19}{2} = 9.5\)
3) \(\frac{33}{2} = 16.5\)
4) \(\frac{55}{4} = 13.75\)
5) 13
6) \(\frac{67}{4} = 16.75\)
7) \(\frac{81}{4} = 20.25\)
8) \(\frac{15}{4} = 3.75\)
9) \(\frac{319}{105} \approx 3.038\)
10) \(\frac{77}{15} \approx 5.133\)
11) \(\frac{25}{4} = 6.25\)
12) \(\frac{533}{420} \approx 1.269\)