

Integral-2

Draw a graph of the area represented by the given integral and compute it using geometry. Verify your answer using DESMOS.

1. $\int_{-3}^3 2x \, dx$

2. $\int_{-2}^3 (2x + 4) \, dx$

3. $\int_{-2}^1 (3x + 4) \, dx$

4. $\int_{-2}^1 4 \, dx$

5. $\int_0^8 (7 - x) \, dx$

6. $\int_{\frac{\pi}{2}}^{\frac{3\pi}{2}} \sin \, dx$

7. $\int_0^6 (4 - x) \, dx$

8. $\int_{-2}^3 |x| \, dx$

9. $\int_{-2}^2 (2 - |x|) \, dx$

10. $\int_{-2}^2 (2x + |2x|) \, dx$

Answer Key

1. 0

2. 25

3. $\frac{15}{2}$

4. 12

5. 24

6. 0

7. 6

8. $\frac{13}{2}$

9. 4

10. 2