

Answers to Calculus Worksheet Chapter 6.5

Side 1

3. 36

4. $5/2$

5. 0

6. 26

7. $10/3$

8. 15

13. $\int_0^5 3dx$

14. $\int_0^2 (4-2x) dx$

15. $\int_{-4}^4 (4-|x|)dx$

16. $\int_0^2 x^2 dx$

17. $\int_{-2}^2 (4-x^2)dx$

18. $\int_{-1}^1 \frac{1}{x^2+1} dx$

47. a) $-\pi$ b) 4 c) $-1-2\pi$ d) $3-2\pi$ e) $5+2\pi$ f) $23-2\pi$

48. a) $1/2$ b) 6 c) 6 d) -3 e) -3 f) -2

49. a) 14 b) 4 c) 8 d) 0

50. 40

55. a

56. b

57. d

58. c

Side 2

19. $\int_0^{\pi} \sin x dx$

20. $\int_0^{\frac{\pi}{4}} \tan x dx$

21. $\int_0^8 \sqrt[3]{x} dx$

22. $\int_0^4 (-\sqrt{x} + 2) dx$

23. 12

24. 8a

25. 8

26. 4

27. 14

28. 32

29. 1

30. a^2

31. $\frac{9\pi}{2}$

32. $\frac{\pi r^2}{2}$

33. -6

34. 0

35. 24

36. 30

37. -10

38. 68

39. 16

40. -36

41. a) 13

b) -10

c) 0

d) 30

42. a) 3 b) 1

c) 0

d) 5

43. a) 8

b) -12

c) -4

d) 30

44. a) -5 b) 10

c) 0

d) 15

45. -48, 88

46. a) 64, under

b) 236, over

c) 136, between over + under