

Kerry Ojakian's MTH 23.5 Class
Class Assignment #5 (and 6)

Evaluate:

1. $3 + 5 \cdot (2) =$
2. $(3 + 5) \cdot (2) =$
3. $3 + 5 \cdot (-2) =$
4. $(3 + 5) \cdot (-2) =$
5. $1 + 2^3 =$
6. $(1 + 2)^3 =$
7. $10 - 4 =$
8. $4 - 10 =$
9. $|4 - 10| =$
10. $|10 - 4| =$
11. $-(10 - 4) =$
12. $-(4 - 10) =$
13. $-8 - 3^2 =$
14. $11 - 72 \div 9 =$
15. $18 - 42 \div 7 =$
16. $13 - 5 - 1 + 9 \div 3 =$
17. $5 \cdot 6 - (15 - 6) =$
18. $3 \cdot 9 - (35 - 1) =$
19. $9 + 3 - 12 =$
20. $17 - 10 - 8 =$
21. $10 + 6 \div 2 + (3)(-3) =$
22. $3 \cdot 4 \cdot 2 \div 4 + 3 =$
23. $2 \cdot 5 \cdot 10 \div 5 + 3 =$
24. $(2 \cdot 2)^2 =$
25. $(5 \cdot 2)^2 =$
26. $13 + 0 \div 7 =$
27. $9 + 10 \div 5 =$
28. $[12 \div (4 \div 2)]^2 =$
29. $[32 \div (8 \div 2)]^2 =$
30. $12 + 3 \cdot 2 + (3 + 5 \cdot 2) =$
31. $9 + 4 \cdot 5 + (8 + 4 \cdot 4) =$
32. $13 + 2(5 - 3) =$
33. $16 + 5(9 - 4) =$
34. $12 \div 3 \cdot 4 =$
35. $25 \div 5 \cdot 5 =$
36. $1 + (-9 + 7)^2 - 7 \cdot 2 =$
37. $2 \cdot |4 - 5|^3 - (5 - 4)^2 =$

Evaluate the following expressions

38. $x + 3$ if $x = 5$
39. $x + 3$ if $x = 10$
40. $a + 6b$ if $a = 4, b = 8$
41. $a + 6b$ if $a = -7, b = -2$

42. $4xy$ if $x = 4, y = -3$

44. $x^2 - y^2 + 3$ if $x = -2, y = 1$

43. $x^2 - y^2 + 3$ if $x = 2, y = 3$

45. $x^2 - y^2 + 3$ if $x = -1, y = -3$

Evaluate the following expressions

46. $|4 - 2x|$ if $x = 5$

48. $2a - \frac{b}{6}$ if $a = 5, b = -18$

47. $2a - \frac{b}{6}$ if $a = 5, b = 18$

49. $x^2 - y^2$ if $x = -4, y = 0$

50. $x^2 - y^2$ if $x = 0, y = -4$

Evaluate using the formula.

51. Suppose a rectangle has a length L and width W . Its area is $L \cdot W$. Its perimeter is: $2L + 2W$.

- (a) Find the area of a rectangle with width 5 and length 7.
- (b) Find the perimeter of a rectangle with width 5 and length 7.
- (c) What is the area of a square Manhattan block if the length of one block is 50 feet? If you walk around the whole square block, what distance did you walk?
- (d) What is the area of a rectangular playground if its length is 97 meters and its width is 100 meters.
- (e) Find the rectangle whose area is equal to its perimeter.

52. Suppose a circle has radius r . Its area is πr^2 . Its perimeter is: $2\pi r$.

- (a) Find the area of a circle with radius 4.
- (b) Find the perimeter of a circle with radius 4.
- (c) Suppose you have 5 circles, each of radius 3. What is the total area of the 5 circles..
- (d) Find a circle whose area is equal to its perimeter.