Name:      Due Date:      Teacher:      Parent Sign:

Questions

1. Diamond: top = 10, left = 2x, right = 8. If x = 3, what is the bottom?

2. Diamond: top = 5, left = 3x, right = 11. If x = 2, what is the bottom?

3. Diamond: top = 4x, left = 7, right = 9. If x = 2, what is the bottom?

4. Diamond: left = 4, right = 3x, top = 5. If x = 4, what is the bottom?

5. Diamond: top = 2x + 3, left = 9, right = 5. If x = 2, what is the bottom?

6. Diamond: left = 2x, right = 3x, top = 10. If x = 3, what is the bottom?

7. Diamond: top = 3x + 1, left = 8, right = 2x. If x = 2, what is the bottom?

8. Diamond: top = 12, left = 5, right = 4x. If x = 2, what is the bottom?

9. Diamond: top = 7, left = 2x + 1, right = 6. If x = 3, what is the bottom?

10. Diamond: top = 2x, left = 3, right = 4. If x = 3, what is the bottom?

11. Diamond: top = 3, left = 2x, right = 5. If x = 4, what is the bottom?

12. Diamond: left = 7, right = 2x + 2, top = 9. If x = 2, what is the bottom?

13. Diamond: top = 5x, left = 8, right = 7. If x = 1, what is the bottom?

14. Diamond: left = 3x, right = 4x, top = 14. If x = 2, what is the bottom?

15. Diamond: top = 4x, left = 2x + 1, right = 9. If x = 3, what is the bottom?

16. Diamond: left = 10, right = 3, top = 2x + 2. If x = 4, what is the bottom?

17. Diamond: top = 9, left = 4x, right = 2. If x = 2, what is the bottom?

18. Diamond: left = 2, right = 3, top = 5x. If x = 1, what is the bottom?

19. Flower: petals are 2x, 3, 4, 5. If x = 2, what is the center value?

20. Flower: petals are x + 1, x + 2, x + 3, x + 4. If x = 1, what is the center value?

21. Flower: petals are 3n, 2n, n, 4. If n = 2, what is the center value?

22. Flower: petals are 5, 5, 5, 5. What is the center value?

23. Flower: petals are x, 2x, 3x, 4x. If x = 1, what is the center value?

24. Flower: petals are 2x + 1, 2x + 1, 1, 1. If x = 2, what is the center value?

25. Flower: petals are 3, 4x, 2, x. If x = 3, what is the center value?

26. Flower: petals are x - 1, x - 2, x - 3, x - 4. If x = 5, what is the center value?

27. Flower: petals are 2a, 3, 4a, 1. If a = 2, what is the center value?

28. Flower: petals are 7, b + 2, 2b, 1. If b = 3, what is the center value?

29. Flower: petals are 0, x, 2x, 3x. If x = 2, what is the center value?

30. Flower: petals are $\frac{x}{2}$, $\frac{x}{2}$, $\frac{x}{2}$, $\frac{x}{2}$. If x = 8, what is the center value?

31. Flower: petals are 2x, 2x, 2x, 2x. If x = 3, what is the center value?

32. Flower: petals are x + 5, 5, 5, x - 1. If x = 2, what is the center value?

33. Flower: petals are 10, 2n + 1, 3, n. If n = 2, what is the center value?

34. Flower: petals are x, x, x, 5. If x = 3, what is the center value?

Writing expressions (word problems) — write the expression and evaluate (values given):

35. A number t is increased by 7. If t = 4, what is the result?

36. Three times a number n minus 2. If n = 5, what is the value?

37. The total cost is 8x + 5. If x = 2, what is the total cost?

38. Mia has m packs of stickers, each pack has 6 stickers; she also has 4 extra stickers. If m = 3, how many stickers does she have?

39. A rectangle has length l = x and width w = 3. Perimeter = 2(l + w). If x = 4, what is the perimeter?

40. Sam saves $5 each week and then adds $10. If he saves for w = 4 weeks, how much money does he have?

41. Temperature starts at t degrees and rises 2 degrees each hour. Expression t + 2h. If t = 10 and h = 3, what is the temperature?

42. A taxi fare = $4 base + $2 per mile (4 + 2m). If m = 6 miles, what is the fare?

43. Number of pages read = 12 + p where p is extra pages. If p = 8, how many pages total?

44. Value = 7x - 3. If x = 2, what is the value?

45. Twice a number plus 10. If the number n = 1, what is the result?

46. Ticket cost = 3t + 2 (3 per ticket plus $2 booking). If t = 5 tickets, what is the total?

47. A garden yields 4 vegetables per plant plus 6 from greenhouse: total = 4r + 6. If r = 3 plants, how many vegetables?

48. School buys 9 boxes with b crayons each: total = 9b. If b = 8, how many crayons?

49. Four more than triple a number: 3n + 4. If n = 4, what is the result?

50. A packing machine packs 7 boxes per hour plus 2 spare boxes: total = 7h + 2. If h = 2, how many boxes?