Math 8 Honors 2025

HW Ch2.4B Word Problems

Name _____ Date _____

1. When m is increased by 6, the result is 3 less than one-fourth of m. Find m.

2. Five times the sum of a and 3 is one more than the product of a and 3. Find a.

3. One number is 8 more than another. When twice the larger number is added to the smaller number, the sum is 55. What are the numbers?

4. The sum of two numbers is 43. One number exceeds the other by 75. What are the numbers?

5. The sum of two numbers is 450. Twice the first number is 65 more than half the other number. What are they?

6. The difference of two numbers is 13. Four times the larger number is 68 more than twice the smaller. What are the two numbers?

7. The smaller of two numbers is 1 more than three-fifths of the larger. The sum of the numbers is 17. Find the two numbers.

8. Three numbers have the sum 207. The second number is 9 more than the first, and the third is 3 less than the second number. Find the three numbers.

9. The second of three numbers is 4 times the first. The third is 21 more than the first. The sum of the second and third numbers is 156. Find all three numbers.

10. The second of three numbers is 4 times the first. The third is 13 less than the second. If twice the first is decreased by the third, the result is -21. Find all three numbers.

11. The sum of two consecutive integers is -59. What is the smaller integer?

12. Find three consecutive integers such that the sum of the first and third is 40.

13. Find two consecutive integers such that the difference of their squares is 151.

14. The sum of three consecutive odd integers is 189. What are they?

15. Find three consecutive even integers such that twice the sum of the larger two is 4 less than 5 times the smallest.

16. Are there two consecutive odd integers whose sum is 58? If so, what are they?

17. In a western film, the desparado sits at a poker table with a stack of coins worth \$50. There are as many silver dollars as there are quarters. Figure out the *total* number of coins.

18. Sally has \$1.50 worth of change in her pocket—all nickels and dimes. She has three times as many nickels as dimes. Find the number of each.

19. After closing down his lemonade stand, David finds that he has $3\frac{1}{2}$ times as many dimes as quarters. Their combined value is \$15.60. How many dimes does he have?

20. A change purse contains 120 coins worth \$10. They are all nickels and dimes. How many of each kind are there?

21. Manny has dimes and pennies in his pocket. He has a total of 38 coins, and they are worth \$1.91. How many of each does he have?

22. Ms. Swenson puts quarters and nickels aside for paying tolls. She has a total of 18 coins, and they are worth \$3.45. How many quarters does she have?

23. Sheila has 26 coins in her toy bank. They are all nickels and dimes, and their total value is \$2.45. How many dimes does she have?

24. Toby has 3 more nickels than dimes and 8 fewer nickels than pennies. If the value of his coins is \$2.66, how many dimes does he have?

25. One night a waiter received \$11.30 in tips—all coins. He had 3 times as many dimes as nickels, and 10 more quarters than dimes. Find the number of each type of coin.

26. A parking meter contains pennies, nickels and dimes worth \$2.50. There 2 fewer pennies than nickels, and 3 times as many dimes as nickels. How many of each type of coin are there?

27. Frank is 12 years old, and his mother is 39. In how many years will Frank be half as old as his mother?

28. Imagine that you are 15 years old and your father is 45. In how many years will your father be twice as old as you?

29. Mike is 18 years old and his grandmother is 66 years old. How many years ago was the grandmother 9 times as old as Mike?

30. Duane is twice as old as Erik. Five years ago, the sum of their ages was 26. How old is each person now?

31. Lindsay is now 3 times as old as Greg. In five years, she will be twice as old as Greg. Find their ages now.

32. George is 5 times as old as his son. Two years ago George was 7 times as old as son. Find his son's age now.

33. Dierdre's age is one-fourth of her aunt's age. In 12 years, Dierdre will be half as old as her aunt. Find their ages now.

34. Joe is 15 years younger than his brother. Five years from now, three times his own age will equal twice his brother's age. How old is Joe now?

35. The ages of a mother and daughter add up to 56 years. Four years ago, the mother was 2 times older than the daughter. How old is daughter now?

36. The ages of a father and son add up to 59 years. 13 years ago, the father was 10 times older than the son. How old is the father now?

37. A woman was 30 years old when her daughter was born. The mother's present age is 6 years more than 3 times the daughter's age. How old is the mother?

38. A man was 25 years old when his son was born. The father's present age is 3 years less than 5 times the son's age. How old is the son?

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Answer List

1. -12
2. -7
3. $13, 21$
4. $-16, 59$
5. $116, 334$
6. $8, 21$
7. $7, 10$
8. $64, 73, 70$
9. $27, 108, 48$
10. $17, 68, 55$
11. -30
12. 19, 20, 21
13. 75, 76
14. 61, 63, 65
15. 16, 18, 20
16. no
17. 80
18. 6 d, 18 n
19. 91
20. 40 n, 80 d
21. 17 d, 21 p
22. 11
23. 23
24. 15
25. 34 q, 24 d, 8 n
26. 5 p, 7 n, 21 d
27. 15
28. 15
29. 12
30. D 24, E 12
31. L 15, G 5
32. 6
33. D 6, a 24
34. 25
35. 20
36. 43
37. 42
38. 7

Catalog List

1. ALG HB 10
2. ALG HB 20
3. ALG HB 30
4. ALG HB 40
5. ALG HB 50
6. ALG HB 55
7. ALG HB 60
8. ALG HB 65
9. ALG HB 70
10. ALG HB 72
11. ALG HC 10
12. ALG HC 20
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14. ALG HC 40
15. ALG HC 50
16. ALG HC 60
17. ALG HD 10
18. ALG HD 15
19. ALG HD 20
20. ALG HD 25
21. ALG HD 30
22. ALG HD 35
23. ALG HD 40
24. ALG HD 45
25. ALG HD 48
26. ALG HD 44
27. ALG HE 5
28. ALG HE 10
29. ALG HE 15
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32. ALG HE 30
33. ALG HE 35
34. ALG HE 40
35. ALG HE 45
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