Alg1 Name _____
Mixed Word Problems 2019

1) Two trains leave the station at the same time. One is traveling east at a rate of 78 mph. The other is traveling west at a rate of 72 mph. How long to they have to travel until they are 1,162.5 miles apart?

2) Two trains leave the station at the same time. One is traveling east at a rate of 69 mph. The other is traveling east at a rate of 81 mph. How long to they have to travel until they are 174 miles apart? (Are they going in the same or different directions?)

3) Two trains leave the station at the same time. One is traveling east at a speed of 78 mph. The other is traveling west at 65 mph. How long until they are 1,515.8 miles apart?

4) Two buses leave the station at the same time. One is traveling north at a speed of 73 mph. The other is traveling north at 61 mph. How long until they are 117 miles apart?

5) Two planes leave the airport at the same time. One is traveling south at a speed of 158 mph. The other is traveling north at 185 mph. How long until they are 771.75 miles apart?

6) A truck driver is driving from Las Vegas to San Francisco. She drives the first 3 hours at a rate of 57 mph. She then drives for 3 and a half hours at a rate of 68 mph. She finishes up the trip by driving the last 4 and a half hours at a rate of 49 mph. What is her average rate of speed for the entire trip?

7) A truck driver is driving from Boston to Chicago. She drives the first 3 hours at a rate of 67 mph. Then she hits some construction and is stuck driving the next two at a rate of 46 mph. She then drives for 5 hours at a rate of 60 mph. She finishes up the trip by driving the last 3 hours at a rate of 70 mph. What is her average rate of speed for the entire trip?

8) A truck driver is driving from Chicago to Seattle. She drives 4 hours at 74 mph, 6 and a half hours at 61 mph, 3 hours at 51 mph, and 2 and a half hours at 55 mph. What is her average speed for the trip?

9) A bus driver is driving from Indianapolis to Arkansas. He drives 5 hours at 73 mph, 5 and a half hours at 57 mph, 2 hours at 59 mph, and 1 and a half hours at 64 mph. What is his average speed for the trip?

10) A truck driver is driving from Cleveland to Dallas. She drives 3 hours at 61 mph, 4 and a half hours at 70 mph, 5 hours at 49 mph, and 3 and a half hours at 65 mph. What is her average speed for the trip?

11) A jar of change has $78.15 in it. There are 7 more dimes than triple the amount of nickels. There are 3 less quarters than double the amount of nickels. How many nickels, dimes, and quarters are in the jar? (There are no pennies.)

12) A jar of change has $209.25 in it. There are 10 dimes less than twice the amount of nickels and 15 less quarters than triple the amount of nickels. How many nickels, dimes, and quarters are in the jar? (There are no pennies.)

13) A jar of change has $57.25 in it. There are 2 dimes more than 3 times the amount of nickels and 3 quarters less than double the amount of nickels. How many nickels, dimes, and quarters are in the jar? (There are no pennies.)

14) A jar of change has $12.40 in it. There are 5 less dimes than nickels. There are 3 less quarters than twice the amount of nickels. How many nickels, dimes, and quarters are in the jar? (There are no pennies.)

15) A jar of change has $25.25 in it. There are 4 less nickels than twice the amount of dimes and 3 quarters more than triple the amount of dimes. How many nickels, dimes, and quarters are in the jar? (There are no pennies.)

16) A store sells turkey sandwiches for $5.00 and ham sandwiches for $4.00. The store sells 5 more turkey sandwiches than double the amount of ham sandwiches and the total sales are $1,089.00. How many of each were sold?

17) A store sells hats for $12.50 and ties for $13.25. Last weekend the store sold 15 more ties than 3 times the amount of hats and the sales were $9,290.25. How many of each were sold?

18) A store sells workbooks for $8.50 and textbooks for $45.25. Last weekend the store sold 10 less textbooks than 3 times the amount of workbooks and the sales were $8,779.50. How many of each were sold?

19) A store sells cheeseburgers for $1.75 and bacon cheeseburgers for $2.25. Last weekend, the store had 683.75 in total sales of cheeseburgers and bacon cheeseburgers. If there are 3 more cheeseburgers sold than double the amount of bacon cheeseburgers, how many of each were sold?

20) A snack stand at Yankee Stadium sells sodas for $4.25 and hot dogs for $5.50. During one game the stand sold 26 more hot dogs than twice the amount of sodas. If the total sales for sodas and hot dogs was $3,376; how many of each item were sold?

21) A deli sells quarts of milk for $1.09 and gallons for $2.49. The deli had 379.61 in total sales of milk. If the deli sold 6 less gallons than double the amount of quarts, how many of each did the deli sell?

22) A phone call cost $4.75. Introductory minutes cost $.22/min and additional minutes are $.15/min. If there were 3 less additional minutes than double the introductory minutes, how many minutes were billed at each rate?

23) A phone call cost $3.36. Introductory minutes cost $.21/min and additional minutes are $.09/min. If there were 6 less additional minutes than introductory minutes, how many minutes were billed at each rate?

24) A 32-minute phone call cost $4.42. Introductory minutes cost $.17/min and additional minutes are $.11/min. How many minutes were billed at each rate?

25) A 35-minute phone call cost $4.95. Introductory minutes cost $.16/min and additional minutes are $.11/min. How many minutes were billed at each rate?

26) A phone call cost $4.74. Introductory minutes cost $.18/min and additional minutes are $.13/min. If there were 6 more additional minutes than double the introductory minutes, how long was the phone call?

27) A phone call cost $6.96. Introductory minutes cost $.21/min and additional minutes are $.12/min. If there were 1 more additional minute than triple the introductory minutes, how long was the phone call?

28) A 30-minute phone call cost $4.49. Introductory minutes cost $.19/minute and additional minutes cost $.08/minute. How many minutes were billed at each rate?

29) Solid ties cost $21 and striped ties cost $24. The store sold 200 ties and made $4,413. How many of each were sold?

30) At a movie theater adult tickets cost $9.00 and child tickets cost $4.00. 120 people attended the last showing of Harry Potter and $720 was collected at the ticket booth. How many of each ticket was sold?

31) Tiffany's cell phone company's daytime rate is $.20/minute and nighttime rate (after 7:00 PM) is $.12/minute. When she got her bill she saw a 29-minute phone call that cost $4.12. When did the call begin? When did it end?

32) Senior citizens ride the bus for $.65. Adults ride the bus for $1.25. There were 65 people on the bus and the bus driver collected $66.85. How many senior citizens were on the bus?

33) Billy's cell phone company's daytime rate is $.15/minute and nighttime rate (after 8:00 PM) is $.11/minute. When he got his bill she saw a 32-minute phone call that cost $3.76. When did the call begin? When did it end?

34) Two cars leave at 1:00 PM from the same place. One drives east at a rate of 71 mph and the other drives west at 64 mph. At what time will they be 438.75 miles apart?

35) Two trains leave the train station at 12:45 PM, both traveling north. One is traveling at a speed of 82 mph. The other is traveling at a speed of 105 mph. At what time will the trains be 78.2 miles apart.

36) The sum of two numbers is 57. The 2nd is 3 less than triple the 1st. Find both numbers.

37) Four numbers have a sum of 115. The 2nd number is 3 more than half the first. The 3rd number is 7 less than double the first. The 4th number is 11 more than the first. Find all four numbers.

38) Three numbers have the sum of 99. The 2nd number is 3 more than double the first. The 3rd number is 3 more than the second. Find all three numbers.

39) The sum of 4 numbers is 162. The 1st number is 8 less than the 2nd. The 3rd number is 2 more than half the 2nd. The 4th number is 57 less than double the 2nd. What is the sum of the 2nd and the 4th number?

40) The difference of 2 numbers is 21. The larger number is 4 more than double the smaller number. Find both numbers.

41) The difference of 2 numbers is 25. The smaller number is 5 more than half the larger number. Find both numbers.

42) Two thirds of a number is equal to 8 less than that same number. Find the number.

43) Triple a number is equal to the number increased by 38. Find the number.

44) Find 5 consecutive integers with the sum of 1,165.

45) Find 4 consecutive even integers such that the sum of the 2nd and 4th is -132.

46) Find 5 consecutive odd integers such that 3 times the first is 85 more than the sum of the 3rd and the 5th.

47) Find five consecutive even integers with a sum of -210.

48) Find 6 consecutive odd integers such that the sum of the 1st and the 4th is 152.

49) Find 5 consecutive integers such that the sum of the 4th and the 5th is 56 more than triple the first.

50) Find 5 consecutive odd integers such that 5 times the 2nd is 95 more than the sum of the 4th and the 5th.

51) Find 5 consecutive even integers such that the sum of the 1st, 2nd, and 3rd is 134 less than 4 times the 5th.

52) The perimeter of a rectangle is 91inches. The length is 2 less than 4 times the width. What are the dimensions of the rectangle?

53) The perimeter of a triangle is 54 feet. The 2^{nd} side is 9 more than half the 1^{st}. The 3^{rd} side is 5 more than the 1^{st}. Find the three sides of the triangle

54) The area of a square is 144 in^2. Find the perimeter.

55) In if there was a cube made from the dimensions in question 54. What would the volume be?

56) The perimeter one side of a cube is 36 in. Find the area of one side and the volume of the cube.

57) The perimeter of a rectangle is 57.5 inches. The length is 4 times the width. What are the dimensions of the rectangle?

58) The perimeter of a triangle is 82 feet. The 2nd side is 12 more than one third of the 1st. The 3rd side is 50 less than the double the 1st. Find the three sides of the triangle.

59) The perimeter of a rectangle is 96 inches. The width is 9 more than half the length. Find the dimensions of the rectangle.

60) The area of a square is 196 in^2. Find the perimeter.

61) In if there was a cube made from the dimensions in question 60. What would the volume be?

62) The perimeter one side of a cube is 64 in. Find the area of one side and the volume of the cube.

63) The perimeter of a rectangle is 72 inches. The length is 8 less than triple the width. What are the dimensions of the rectangle?

64) The perimeter of a triangle is 92 feet. The 1st side is 12 inches more than half of the 2nd. The 3rd side is 11 inches less than the double the 2nd. Find the three sides of the triangle.

65) The perimeter if a rectangle is 80 cm. The length is 4 more than triple the width. Find the area of the rectangle.

66) The perimeter of a rectangle is 94 inches. The width is 2 more than two-thirds the length. Find the area of the rectangle.

67) The perimeter of a right triangle is 60 inches. The 2nd side is 4 more than double the 1st side. The 3rd side is 4 less than triple the 1st side. Find the area of the triangle.

Answer Key: Weighted Avg. Problems

d = rt

1) 7 h 45 m *2) 14 h 30 m* *3) 10h 36 m*
4) 9 h 45 m *5) 2 h 15 m*

Average speed:
6) 57.2 mph *7) 61.8 mph* *8) 61.4 mph*
9) 63.8 mph *10) 60.7 mph*

Jar of Change:
11) 92 N, 283 D, 181 Q
12) 214 N, 418 D, 627 Q
13) 68 N, 206 D, 133 Q
14) 21 N, 16 D, 39 Q
15) 48 N, 26 D, 81 Q

Store Problems:
16) 76 ham, 157 turkey
17) 174 hats, 537 ties
18) 64 wb, 182 tb
19) 118 bcb, 239 cb
20) 212 sodas, 450 hot dogs
21) 65 Quarts, 124 Gallons

Phone Call:
22) 10 I, 17 A
23) 13 I, 7 A
24) 15 I, 17 A
25) 22 I, 13 A
26) 9 I, 24 A
27) 12 I, 37 A
28) 19 I, 11 A

Mixed: Remember the different Let:
29) Let:
29) 129 solid, 71 striped
30) 48 A, 72 C
31) 8 DT, 21 NT → call began at 6:52 and ended at 7:21
32) 41 adults, 24 senior citizens
33) 6DT, 26 NT → call began at 7:54 and ended at 8:26

34) t = 3 h 15 m 4:15pm
35) t = 3h 24m 4:09pm
36) 15,42
37) 24,15,41,35
38) 18,39,42
39) 93 (4 #'s: 42,50,27,43)
40) 17,38
41) 35,60
42) 24
43) 19
44) 231,232,233,234,235
45) -70,-68,-66,-64
46) 97,99,101,103,105
47) -46,-44,-42,-40,-38
48) 73,75,77,79,81
49) -49,-48,-47,-46,-45
50) 33,35,37,39,41
51) 50,52,54,56,58
52) l=36 in , w= 9.5 in
53) 16,17,21
54) 48 in
55) 1,728 in^3
56) A = 81 in^2 V= 729 in^3
57) l=23 in , w= 5.75 in
58) 36in,24in,22in
59) l=26 in , w= 22 in
60) 56 in
61) 2,744 in^3
62) A = 256 in^2 V= 4,096 in^3
63) l=25 in , w= 11 in
64) 25in,26in,41in
65) l=31 in , w= 9 in
66) l=27 in , w= 20 in
67) A = 120 in^2 (sides= 10,24,26)