Problem Set 1

For each problem: define the variable, set up the equation, solve for the unknown, and state the answer.

- 1) Three times some number is twenty-one. What is the number?
- 2) A number multiplied by four equals seventeen. What is the number?
- 3) 8 times some number equals eighty. Find the number.
- 4) A number divided by three will equal eleven. What is the number?
- 5) The product of a number and ten is forty-five. What is the number?
- 6) Some number divided by ten is one. What is the number?
- 7) Some number multiplied by twelve gives six. Find the number.
- 8) Seven times a number is twenty-eight. What is the number?
- 9) A number divided by two equals zero. Find the number.
- 10) The product of a number and nine equals nine. What is the number?
- 11) Six times some number equals zero. What is the number?
- 12) Some number divided by four equals nine. What is the number?
- 13) What is the number? The number multiplied by five equals thirty.
- 14) What is the number? Thirty times the number will give 5.
- 15) 15 multiplied times a number equals ten. Find the number.
- 16) A number divided by forty gives two. What is the number?
- 17) Eight equals some number times three. What is the number?
- 18) Two-thirds times some number equals twenty. Find the number.
- 19) The product of a number and one-sixth is seven. What is the number?
- 20) A number divided by six equals ten. What is the number?
- 21) Four-fifths multiplied times some number will equal twelve. Find the number.
- 22) Some number divided by fourteen equals zero. What is the number?
- 23) Three times a number is thirty-four. Find the number.
- 24) Some number times thirteen equals zero. Find the number.
- 25) A number divided by nine is fifty. What is the number?
- 26) A number divided by four is seven. What is the number?
- 27) Three times some number is twenty-one. What is the number?
- 28) A number multiplied by five equals thirty. What is the number?
- 29) Ten times some number equals eighty. Find the number.
- 30) A number divided by two equals fourteen. What is the number?
- 31) The product of a number and ten is twenty-five. What is the number?
- 32) Some number divided by ten is zero. What is the number?
- 33) Some number multiplied by twelve gives twelve. Find the number.
- 34) Four times a number is twenty-eight. What is the number?
- 35) A number divided by two equals one. Find the number.
- 36) The product of a number and nine equals zero. What is the number?
- 37) Five-sixths times some number equals four. What is the number?
- 38) Some number divided by four equals one. What is the number?
- 39) What is the number? The number multiplied by three equals thirty.

- 40) What is the number? Thirty times the number equals zero.
- 41) Three–fourths multiplied times a number equals ten. Find the number.
- 42) A number divided by thirty-two gives two. What is the number?
- 43) Eight equals some number times sixteen. What is the number?
- 44) Three-eighths times some number equals nine. Find the number.
- 45) The product of a number and seventeen is zero. What is the number?
- 46) A number divided by seven equals ten. What is the number?
- 47) Four multiplied times some number will equal eighty. Find the number.
- 48) Some number divided by sixty equals zero. What is the number?
- 49) Three times a number is sixty-three. Find the number.
- 50) Some number times two-thirds equals zero. Find the number.
- 51) A number divided by nine is two. What is the number?
- 52) A number divided by four is four. What is the number?
- 53) Twelve times some number equals eighteen. Find the number.
- 54) Some number times eighteen equals twelve. Find the number.
- 55) Three times Allen's age is twenty-four. How old is Allen?
- 56) Betty's height multiplied by four equals twenty-six feet. Find Betty's height.
- 57) Six times some number equals thirty-three. Find the number.
- 58) The distance to Calden divided by three equals one hundred miles. How far away is Calden?
- 59) The product of a number and three is forty-five. What is the number?
- 60) David's earnings divided by ten is one dollar an hour. How much does David earn an hour?
- 61) The length of a centipede multiplied by twelve gives eight feet. How long is the centipede?
- 62) Seven times Edward's age is twenty-eight. Find Edward's age.
- 63) The amount of time Flora studies each day divided by two equals zero. How long does Flora study each day.
- 64) The product of George's test grade and nine equals ninety. What was George's test grade.
- 65) Eight times Harriet's spending money equals zero dollars. How much money does Harriet have to spend.
- 66) The weight of an Iqqu divided by four equals twenty kilograms. How much does an Iqqu weigh?
- 67) What is Jack's age? Jack's age multiplied by five equals eighty.
- 68) How long is a klappop. Thirty times the length of a klappop equal five cenitmeters.
- 69) Two multiplied times the number of calories in a can of soda equals four hundred calories. Find the number of calories in the can of soda.
- 70) The number of hours Lucy worked divided by forty gives four. For how many hours did Lucy work?
- 71) Eight equals some number times two. What is the number?
- 72) Two-thirds of Mark's grade twenty. Find the grade Mark made.
- 73) The product of Nancy's height and one-sixth is seven inches. Find Nancy's height.
- 74) The cost of a can of peas divided by six equals ten cents. What is the cost of the can of peas?
- 75) Three–fifths of Peter's weekly salary equals \$30. How much is Peter's weekly salary?
- 76) Some number divided by fifty-one equals zero. What is the number?
- 77) Three times Mr. Quintana's age is ninety years. What is Mr. Quintana's age?
- 78) The thickness of a tulip times thirteen equals 13 millimeters. How thick is a tulip?
- 79) The age of Tom's tiger divided by four is fifty weeks. What is the age of Tom's tiger?
- 80) The distance to Steven's house divided by nine is seven yards. Find the distance to Steven's house.

- 81) Ten times some number is twenty-two. What is the number?
- 82) The number of days Robert worked multiplied by five equals twenty. Find the number of days Robert worked.
- 83) Ten times Mr. Underwood's hat size is fifty-five. What is Mr. Underwood's hat size?
- 84) A number divided by two equals forty-three. What is the number?
- 85) The product of Victoria's savings and ten is seventy-five dollars. How much money does Victoria have saved?
- 86) Some number divided by sixteen is zero. Find the number.
- 87) A Wlabi's depth multiplied by twelve gives thirty-six meters. How deep is a Wlabi?
- 88) Four times Zanila's age is forty-four year. Find Zanila's age.
- 89) A number divided by eighteen equals one. Find the number.
- 90) The product of a number and sixty-nine is zero. What is the number?
- 91) Five-sixths of the weight of a pizza is twenty ounces. How much does the pizza weigh?
- 92) The width of a box divided by four is three feet. How wide is the box?
- 93) What is the cost of a woowoo? The cost of three woowoo's is ninety cents.
- 94) Find the number if three times the number equals zero.
- 95) Three-fourths of Jerry's age is twelve years. Jerry is how old?
- 96) Keith's weight number divided by eight gives two tons. How much is Keith's weight?
- 97) Eight yards equals Mildred's height multiplied by three. How tall is Mildred?
- 98) Three-eighths of Bart's working time equals fifteen hours. How long does Bart work?
- 99) The product of a number and seventeen is seventeen. What is the number?
- 100) Elisa's favorite number divided by ten equals ten. What is the number?

Problem Set 2

Define the variable, set up the problem, solve for the variable and state the answer:

- 1) Three less than two times a number equals ten. What is the number?
- 2) Four less than five times a number equals sixteen. Determine the number.
- 3) Eight more than two times a number equals nine. Find the number.
- 4) One less than six times a number is twelve. What is the number?
- 5) Some number less than fifteen equals thirteen. Find the number.
- 6) Find the number if ten added to three times the number is thirty-one.
- 7) A number divided by nine equals negative eighteen. What is the number?
- 8) Seven subtracted from a number divided by two is eight. Find the number.
- 9) Four times a number added to nine equals eleven. What is the number?
- 10) Three times the sum of a number and seven equals twenty-seven. Determine the number.
- 11) Two times the result of a number minus eight equals six. Find the number.
- 12) Eight less than the number equals fourteen. Determine the number.
- 13) Some number less than eight equals fourteen. Find the number.
- 14) Fifteen minus six times a number is negative three. What is the number?
- 15) One less than the number is negative one. What is the number?
- 16) The number divided by seven equals two. What is the number?
- 17) Twenty times the number equals twenty-four. Find the number.
- 18) Three subtracted from double the number equals twelve. Find the number.
- 19) Twice the number less than ten gives two. Determine the number.
- 20) Thirty more than the number equals twenty. What is the number?
- 21) Fourteen times the number equals zero. What is the number?
- 22) The number divided by nineteen equals one. What is the number?
- 23) Sixteen added to the number equals sixteen. What is the number?
- 24) Three equals two less than nine times the number. Find the number.
- 25) Negative two equals four less than the number divided by three. Determine the number.
- 26) Some number added to sixteen equals twelve. What is the number?
- 27) Ten times a number added to six is eighty. Find the number.
- 28) Two more than three times a number equals sixty-two. Find the number.
- 29) Three subtracted from two times some number equals fourteen. Find the1 number.
- 30) Five times the sum of a number and four is twelve. What is the number?
- 31) Four less than a number divided by six equals one. Find the number.
- 32) Three added to a number divided by five equals seven. What is the number?
- 33) Twenty-three minus five times some number is three. What is the number?
- 34) Ruth's age added to ten equals fifteen. How old is Ruth?
- 35) Two times Tom's weight minus eight equals tons. How much does Tom weigh?
- 36) Five added to the length of a Skaak divided by six equals twenty inches. How long is a Skaak?

Problem Set 3

Define variables, set-up equations, solve, and state the solution; then check each of the following problems.

NOTE: Do not use the letters o or O for your variable. If you choose to use b, G, I, l, G, S, t, or Z as a variable, you must do so in such a way that are not confused with numerals or other symbols.

1) The sum of two consecutive integers equals sixty-one. What are the integers?

2) There are three consecutive integers. The first one added to the second one equals the third one. Find all three integers.

3) The sum of two consecutive integers equals sixteen. Find the integers.

4) There are four consecutive integers. The first integer added to the third integer equals one hundred two. What are the two integers?

5) Find three consecutive integers that add up to fifteen.

6) There are three consecutive integers. The second integer added to the third is twenty-three more than the first integer. What are the integers?

7) Find two consecutive integers that add up to one.

8) There are two consecutive integers. The second integer is nine less than two times the first integer. What are the integers?

9) There are two consecutive integers. The first integer is nine less than two times the second integer. What are the integers?

10) Find four consecutive integers whose sum is eighty-six.

11) Find three consecutive integers whose sum in nineteen.

12) Find three consecutive integers whose sum is sixty-three.

13) There are two consecutive integers. If you multiply the first one by four and the second one by three, and you add the two answers, you will get the number fifty-nine. What are the integers?

14) Find five consecutive integers that add up to one thousand, ten.

15) There are four consecutive integers. The sum of the second, third, and fourth integers is four more than the first integer. Find all four.

16) Abby is three years older than Betty. The sum of their ages is eleven. How old is each of them?

17) Carl is twice as old as David. The sum of their ages is forty-eight. Find the age of each of them.

18) Edith is two inches shorter than Felicia. The sum of their heights is one hundred, three inches.

19) George is three inches taller than Harry. The sum of their heights is ninety-eight inches. How tall is each of them?

20) An Izkadoop weighs three times as much as a Jlo. The Jlo is twenty tons lighter than an Izkadoop. Find the weight of each of them.

21) Mary is three years older than Nancy. Olivia is two years younger than Nancy. The sum of their ages is forty-six. How old is each of them?

22) There are two numbers. The first number is five times the second number. The two numbers add up to one. What are the two numbers?

23) Peter worked seventeen more hours than Quincy did. Together, they worked a total of two hundred, twenty-nine hours. For how long did each of the boys work?

24) Renee earned twenty dollars less than Sue. Together, they earned a total of a hundred, ten dollars. How much money did each of them earn?

25) A tweeplelee is five centimeters shorter than an ugwamp. Placed head to tail, they reach thirty centimeters. How long is each?

26) Violet is seven pounds lighter than Winston. Together they weight one hundred pounds. How much does each of them weigh?

27) A Xenak contains ten more calories than a Yup. A Yup contains nineteen less calories than a Zlord. Two Xenaks, one Yup, and four Zlords have a total of eighty-six calories. How many calories are in each?

NOTE: A triangle has three sides; a quadrilateral has four sides. Perimeter means the total distance around.

28) The biggest side of a triangle is three inches greater than the smallest side. The remaining side is one inch greater than the smallest side. The perimeter of the triangle is twenty-five inches. How long is each side?

29) Three sides of a quadrilateral are equal. The remaining side is four feet longer than the other sides. The perimeter of the quadrilateral equals twenty-four feet. Find the length of each side.

30) The second side of a triangle is twice as big as the first side. The third side is five yards longer than the first side. The perimeter of the triangle equals one hundred twenty-five yards. How long is each side?

31) The longest side of a triangle is seven units longer than the next longer side. The smallest side is ten units less than the longest side. The sum of those two sides equals forty more than the smallest side. Find the length of each side.

32) The second side of a quadrilateral is one more than the first side. The third side is three more than the first side. The fourth side is three times the first side. The perimeter equals sixty-four miles. Find the length of each side.

33) Two sides of a triangle are equal. The third side is five units less than the sum of the first two sides. The perimeter equals fifty-five units. How long is each side?

34) The first side of a triangle is four millimeters shorter than the second side. The second side is five millimeters more than the third side. The perimeter of the triangle equals thirty-seven millimeters. Find the length of each side

35) Find three consecutive integers that add up to twenty-four.

36) There are four consecutive integers. The first integer added to the fourth integer equals twenty-five. What are the integers?

37) Robert is twelve inches taller than Tom. The sum of their heights is 112 inches. How tall is each boy?

38) The second side of a triangle is five feet shorter than the first side. The third side of the triangle is one foot longer than the first side. The perimeter of the triangle equals seventy-one feet. How long is each side?

39) Find two consecutive integers whose sum is sixteen.

40) There are five consecutive integers. The sum of the first integer, the third integer, and the fourth integer equals two. Find all the integers.

41) Ann weighs seven pounds less than Marie. Marie weighs eight pounds more than Bob. Ann's weight added to Marie's weight is 71 pounds more than Bob's weight. How much does each of them weigh?

42) In a quadrilateral, the length of the second side is two times the length of the first side. The length of the third side is three more than the length of the first side. The length of the fourth side is five more than the length of the second side. The perimeter is eight times the length of the first side. Find each side and the perimeter.

Problem Set 4

Use the formula d = rt to work the following problems.

- 1) Find d if r = 7 and t = 3.
- 2) Find r if d = 8 and t = 2.
- 3) Find t if d = 35 and r = 8.
- 4) How far will a car go if it travels for 20 hours at 30 miles per hour?
- 5) A plane is flying at a rate of 200 miles per hour. How much time will it take to fly 800 miles?
- 6) A man wants to walk a distance of 800 yards. He wants to do this in 40 minutes. How fast must he walk?
- 7) A bug is crawling at a rate of 4/5 inch per second. How long will the bug take to crawl a distance of 20 inches?

8) Jane wants to bicycle a distance of 10 miles. How fast must she pedal the bicycle if she needs to arrive in three-fourths of an hour?

Problem Set 5

Define the variable, set up the equation, solve for the unknown, and state the answer; then check the answer.

1) The sum of three consecutive numbers is 66. What are the numbers?

2) The sum of four consecutive even numbers is 140. Find the numbers.

3) There are four consecutive numbers. The first number added to the last equals 185. What are the numbers?

4) There are three consecutive odd numbers. Three times the second number is 26 more than the first number. Find all the numbers.

5) 4 times some number is 22 less than 6 times the number. Find the number.

6) John is three years older than Harry. Fred is two times as old as Harry. The sum of John's and Fred's ages is 48. How old is each?

7) The second side of a triangle if 3 more than the first side. The third side of the triangle is 2 less than the first side. The perimeter of the triangle is 84 inches. Find all three sides.

8) Tom is twice as old as Mary. The sum of their ages is 66. How old is each of them?

9) Albert is three times as old as Ben. Albert is 26 years older than Ben. How old is each of them?

10) Cathy's mother is twenty-four years older than Cathy. In two years, she will be twice as old as Cathy. Find the age of each.

11) David is three years younger than Eve. Five years ago David was twice as old as Eve. How old is each of them now?

12) George is five times as old as George. In eight years, Florinda will be the same age as George is now. Find the age of each of them.

13) Hank is thirty-two years old. Jeff twenty-three years old. How many years ago was it that Hank was four times as old as Jeff?

14) Mark is five years younger than Nancy. Peter is eight years older than Nancy. Rosie is 3 years younger than Mark. The sum of Mark's and Nancy's age is seven more than Peter's age. How old are each of them?