First name: _____ Last name: _____   Student ID: _____

Equation (3) Homework

1. What are two consecutive odd integers, such that six times the larger minus two times the smaller is 152?

2. One number is three times another number. If the sum of the numbers is 36, determine the two numbers.

3. Determine three consecutive odd integers whose sum is 2097.

4. Lisa is three times as old as Maggie. The difference in their ages is 12 years. What are their ages?

5. The length of a rectangular pool is 15 m greater than its width. What is the length if the perimeter of the pool is 96 m?

6. Suppose one painter can paint the entire house in twelve hours, and the second painter takes eight hours. How long would it take the two painters together to paint the house?

7. Erica drove from Sarnia at 80 km/h. Aisha left Sarnia one hour later and drove along the same road at 100 km/h. How far from Sarnia did Aisha overtake Erica?

8. Sierra has seventeen fewer dimes than quarters. Sierra has a total of twenty-seven dimes and quarters. How many of each coin does she have?

9. An isosceles triangle has a perimeter of 47 cm. If the two equal length sides are 4 cm longer than the third side, what are the lengths of the three sides?

10. At the December concert, 209 tickets were sold. There were 23 more student tickets sold than twice the number of adult tickets. How many of each were sold?

11. A bill of $2.35 was paid in dimes and nickels. If there were 32 coins in all, how many of each coin were there?

12. $3200 is divided among three people, Marya, Zil, and Ishan. If Marya gets three times as much money as Zil, and Ishan gets four times as much money as Zil. How much does each person get?

13. Laura, Mai, and Sabina are competing for homework points. At the end of the term, Laura has 9 more than twice the points Mai got, and Sabina had 2 points less than Mai. Together, they got 47 points.   How many points did each girl get?

14. Ned bought a radio for $120. He paid for it with $2 coins and $5 bills. If there were a total of 30 coins and bills, how many $2 coins were there and how many $5 bills were there?

15. Rod is twice as old as his brother Todd. In 7 years, Rod will be only one and one-half times as old as Todd. How old is Rod now?

16. Mr. Burns is three times as old as Smithers. Nine years ago the sum of their ages was 114. How old are they now?

17. Brianna has an alloy containing 10% gold. Emma has 1/2 ounces of an alloy containing 71% gold. They combined their alloys to make an alloy with 46 3/5% gold. Gold is worth $209.31 an ounce at the current market value. Brianna estimated the value of the new alloy to be $81.28 an ounce. How many ounces of Brianna's alloy were used?

18. The formula $P = 2l + 2w$ is used to calculate the perimeter of a rectangle.
a) Solve this formula for l.

b) If perimeter of a rectangle is 120 cm, and the width is 15, calculate the length of the rectangle using the formula from (a).

19. The formula for keyboarding speed (s) is: $s = \dfrac{w - 10e}{t}$
Where e is number of errors, w is the number of words typed, and t is the time, in minutes. Solve the formula for e, and find the number of errors made by Saher, who typed 400 words in 5 min, and had a keyboarding speed of 70 words per minute.