

MATHEMATICS 10
ASSIGNMENT 1
USE ***SUBSTITUTION*** OR ***ELIMINATION*** TO SOLVE

Solve each problem by including the following steps:

1. Write let statements with two variables.
2. Write two equations using the variables from step 1.
3. Simplify and solve for the variables.
4. Check your answer.
5. Write a 'therefore' statement which answers your let statements.

Word Problems:

1. Ben is 3 years older than Chris. The sum of their ages is 35. How old is each one?
2. Jonah and Matthew played a total of 50 chess games. Jonah won 4 times as many games as Matthew. How many games did each win?
3. Jamie played in 45 tennis matches this year. If she won 5 more than 3 times the number of matches she lost, how many matches did she win and how many did she lose?
4. Camille scored five more points than twice the number Isabel scored. If combined they scored 44 points, how many points did each score?
5. Andrew scored four times as many goals as Grant did. If the difference in the number of goals they scored is 51 how many did each score?
6. Daphne's age is 28 years less than twice Erin's age. If their combined age is 116, what is each one's age?
7. Twice Sam's money plus three times Joel's money equals \$281. Sam has \$47 more than Joel. How much money does each one have?
8. The sum of two numbers is 137. The first number is 43 more than the second number. What are the numbers?
9. Michael won \$8,000. He invested part of his winnings in bonds that paid him 7% interest per year and the remainder he placed in GICs which returned 5% per year. If the total interest after one year was \$520, how much money did he invest in each?
10. Jack was a riverboat captain ("Black Jack No Slack" as he was known). He had a river boat which took 4 hours to travel 48 km with the current and 12 hours to travel 48 km against the current. Determine the speed of the boat in still water and the speed of the current.