**Methodist High School**

**Unit Test 2**

**Class 9-I**

Q-1) a) Solve for x and y:

[2+2]

*Answer:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.*

b) A submarine can travel at 25 knots with the current and 16 knots against it, find the speed of the wind and the speed of the submarine is still water. [3]

*Answer:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.*

Q-2) Factorise the following:

a) [2]

*Answer:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.*

b) [1]

*Answer:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.*

Q-3) a) Solve the quadratic, giving answers to two decimal place.

[4]

*Answer:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.*

b) A number exceeds four times its reciprocal by 3. Find the number. [3]

*Answer:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.*

Q-4) Amina takes 9 hours 25 minutes to complete a long walk.

a) Show that the time 9 hours 25 minutes can be written as hours. [1]

*Answer:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.*

b) She walks (3y+2) km at 3 km/hr and then a further (y+4) km at 2 km/hr. Show that the total time taken is hours. [2]

*Answer:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.*

c) Solve the equation . [2]

*Answer:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.*

d) Calculate Amina’s average speed in kilometre per hour for the whole walk. [3]

*Answer:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.*