

S.M.ART School

MBA3 Homework for MS4 due 09-29-2022

At the last class we. Talked about Postulates, Definitions, and Theorems. Then we discussed Corresponding Angles Postulate, which we then applied the theorem of the sum of interior angles in arbitrary triangle. At the end of the session, we have proved that the sum of all interior angles in any triangle is 180 degrees.

We will go over this theorem again. Then we will talk about sum of all interior angle for other polygons

- H1 In a certain triangle degree measure of one angle is one third of degree measure of a second angle. And degree measure of the second angle is one half of degree measure of a third angle.
Find the degree measure of each angle in the triangle.
- G1 The houses of Main Street are numbered in multiples of 6. That is the first house has a number 6, the second 12, and so on. What is the sum of the last digits of the street numbers of the 83rd, 84th, and 85th houses?
- G2 What is the greatest whole number X, such that
“ $\frac{4}{9} + \frac{X}{9} - \frac{2}{9}$ less than 1 “ is a TRUE statement

G3 What is the smallest whole number X, such that
“ $\frac{5}{8} + \frac{X}{16} - \frac{3}{8}$ greater than 1 “ is a TRUE statement

G4 Two numbers multiplied result in an odd number. Which of the following is true?

- A) Both must be odd
- B) At least one is odd
- C) Exactly one is odd and exactly one is even
- D) At least one is even
- E) Both must be even

W1 A tub is shaped like rectangular solid with internal measurements of 48 inches * 72 inches * 96 inches. If two faucets, each with an output of 3 cubic feet of water per minute, pour water into the tub simultaneously, how many minutes does it take to fill the tub completely?

W2 A sport club has a ratio of girls to boys of 4 to 11. If the club has a total of 225 members, what is the difference between the number of girls and the number of boys?

W3 How do you divide \$100 in two parts so that one part is 49 times greater than the other?

Do division by canceling out common factors between top and bottom of each fraction

C1 $(13 / 72)$ divide by $(52 / 15)$

C2 $(17 / 49)$ divide by $(153 / 35)$

Find possible values of x, so that the following statements are true.

E1 $14 / x = 98 / (x - 1)$

E2 $0.014 / x = 0.098 / (x - 1)$

E3 $0.014 / (x + 3) = 0.098 / (7x - 7)$

E4 $2x / 3 - x / 4 = 1/24$

E5 $2 / (3x) - 4 / x = 1/24$

W4 Sum of two numbers is -4. One of them is greater than the other by 0.8. What are the values of each of the numbers?