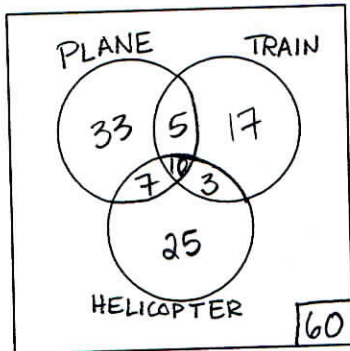


5) A survey of 160 elementary school students concerning travel on a plane, a train, and a helicopter. Fifty-five students traveled by plane, 35 traveled by train, 45 traveled by helicopter, 15 traveled by plane and train, 17 traveled by plane and helicopter, 13 traveled by train and helicopter, and 10 traveled by plane, train, and helicopter.

a) Complete the Venn diagram below.



b) How many students traveled by helicopter only?

25

c) How many students had done <sup>none</sup> any of these three types of traveling?

60

6) Write an algebraic rule for each function.

a)  $f(x)$  is an element in the range, and each element in the domain is a whole number assigned to the number which is 178 more than 7 times the number.

$$f(x) = 7x + 178$$

b)  $g(x)$  is an element in the range, and each element in the domain is a whole number assigned to 23 less than one-fourth the number.

$$g(x) = \frac{1}{4}x - 23$$

c) Evaluate  $f(3)$  and  $g(16)$ .

$$f(3) = 7(3) + 178 = 21 + 178 = 199$$

$$g(16) = \frac{1}{4}(16) - 23 = 4 - 23 = -19$$