- 1. Given a number line: The coordinates of K and E are 7 and 17. A is the midpoint of KE and T is the midpoint of AE. Find
  - a) KA

b) the coordinate of A

c) AT

- d) the coordinate of T.
- 2. If  $\angle A$  and  $\angle B$  are supplementary, find x,  $m\angle A$  and  $m\angle B$ .

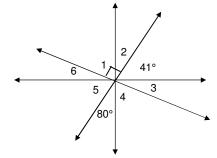
$$m\angle A = 3x + 12$$

$$m\angle B = 2(x + 4)$$

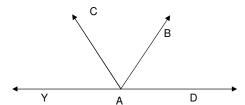
3. If  $\angle A$  and  $\angle B$  are now complementary, but have the same variable values as above, find x

 $m\angle A$  and  $m\angle B$ .

- 4. The supplement of an angle is 48 more than twice the complement of the same angle. Find the angle. (Hint: Call the angle x. Then its supplement would be \_\_\_\_\_\_ and its complement would be \_\_\_\_\_\_)
- 5. Given the drawing, find the measures of the numbered angles.



- 6. Given AC bisects ∠YAB.
- a) If  $m \angle YAC = x$  and  $m \angle BAD = 4x 32$  find x.



b) If  $m\angle YAB = 68$  and  $m\angle BAC = 3x - 1$  find x.

Answers:

1.

- a) 5 b) 12
- c)2.5
- d)14.5

2.

angle A=108

angle B= 72

3.

angle A=54

angle B=36

4.

180-x and 90-x and x=48

5.

- $\angle 1 = 10$
- $\angle 2 = 80$
- ∡3 = 49
- $\angle 4 = 10$
- ∡5 = 41
- **∡**6 = 49

6.

- a) 35 1/3
- b) 11 2/3