

Geometry/Trig - Algebra Connection - You must show all work.

I.

A is the midpoint of CT

$$CA = 8x - 6$$

$$AT = 3x + 24$$

$$8x - 6 = 3x + 24$$

$$-3x + 6 = -3x + 24 + 6$$

$$5x = 30$$

Find the following:

1.) $x = \underline{6}$

2.) $CA = \underline{42}$

3.) $AT = \underline{42}$

4.) $CT = \underline{84}$

$x = 6$

II.

Find the following:

1.) $x = \underline{22}$

2.) $DO = \underline{27}$

3.) $OG = \underline{15}$

$x = 22$

III.

Find the following:

1.) $x = \underline{4}$

2.) $PT = \underline{30}$

3.) $PE = \underline{20}$

4.) $ET = \underline{10}$

$x = 4$

IV.

Find the following:

1.) $x = \underline{6}$

2.) $MA = \underline{12}$

3.) $TH = \underline{12}$

4.) $MH = \underline{48}$

5.) $MT = \underline{36}$

6.) $AH = \underline{36}$

7.) $AT = \underline{24}$

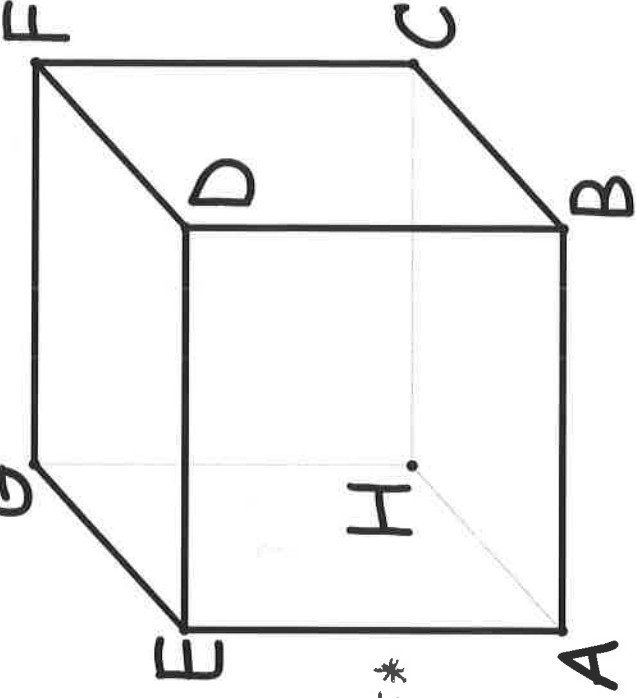
$5x = 30$

$x = 6$

* There are other possible answers

Geometry/Trig - Foundational Vocabulary Review

I. Name the following (Use correct notation).



1. Name a line. GF *
2. Name a line segment. ED *
3. Name a ray. AB *
4. Name a plane. Plane DFBC *
5. Name a point. A *
6. Name two intersecting lines. ED and EG *
7. Name two lines that do not intersect. AH and BC *
8. Name two planes that do not intersect. Plane ABDE and Plane CHGF *
9. Name two intersecting planes. GEAH and GEDF
10. $EDFG \cap DFBC$ at DF
11. $BG \cap BC$ at B

II. Answer each question.

12. What are points that lie on the same line called? Collinear
13. What are points that lie on the same plane called? Coplanar
14. What is the set of all points called? space

III. Finish the sentence or circle the correct answer to fill in the blank.

- ~~15.~~ If two lines intersect, then the lines lie on the same plane
- ~~16.~~ If two points lie in a plane, then the line _____
- ~~17.~~ Through a line and a point not on that line you can draw _____
18. If two lines intersect, then their intersection is one point
19. If two planes intersect, then their intersection is a line
20. Through one point you can draw (zero, one, two, an infinite amount of) lines.
21. Through two points you can draw (zero, one, two, an infinite amount of) lines.
22. Through any three collinear points you can draw (zero, one, two, an infinite amount of) planes.
23. Through any three noncollinear points you can draw (zero, one, two, an infinite amount of) planes.