Target 1: Demonstrate knowledge of core definitions include: point, line, segment, ray, plane, angle, etc.

Directions: Select ALL that apply in questions #1-3.

1) Which of the following has an infinite set of points?	2) Which of the following occupies no space or volume?	3) Which of the following do two rays with the same endpoint form?
(a) $\overline{AB}$ (b) $\overleftrightarrow{HG}$ (c) $\angle L$ (d) $\overrightarrow{TU}$	(a) $\overrightarrow{PQ}$ (b) $\overline{BC}$ (c) $\angle PAC$ (d) point P	(a) $\overleftrightarrow{MN}$ (b) $\angle T$ (c) $\overline{QZ}$ (d) $\overrightarrow{BD}$

Directions: Use the diagram to answer the following questions #4-9. Select all that apply!
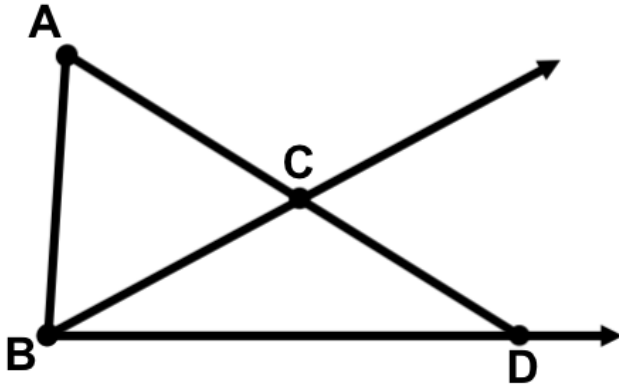
4) Which of the following is a line segment?

a) AC b) AD c) DC d) BC

5) True or False: BC is an example of a line.

6) Which one listed is an example of an angle?

a) ∠AB   b) ∠D   c) ∠BCA   d) ∠DA   e) All of the above

7) Which one listed is an example of a ray?

a) DA b) BC c) CD d) BD e) ∠D
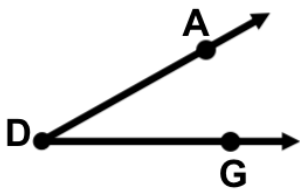
8) What is A?

a) a point   b) a line   c) a ray   d) an angle

9) What is $\overrightarrow{BC}$?

a) a point   b) a line   c) a ray   d) an angle

Directions: Identify whether the given angle is acute, obtuse, right or straight. Then name the angle two ways and give an example of an angle measure.
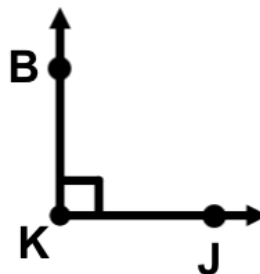
10) a) Acute b) Obtuse c) Right d) Straight Name: _____ Angle measure = _____	11) a) Acute b) Obtuse c) Right d) Straight Name: _____ Angle measure = _____
12) What type of angle is formed by the clock's hands when the time is 6 o'clock? (measure from the hour hand clockwise to the minute hand)	13) What type of angle is formed by the clock's hands when the time is 2 o'clock? (measure from the hour hand clockwise to the minute hand)

Directions: Find the length and the midpoint or the length and 2nd endpoint of the following line segments.

14) If the midpoint is (-2, 5) and one endpoint is (3, -1), find the missing endpoint and the length of the segment.	15) If the midpoint is (4,1) and one endpoint is (-3,8), find the missing endpoint and the length of the segment.	16) Two endpoints $(0.3, -4.2)$ and $(-0.1, 2.2)$
2nd Endpoint: _____ Length: _____	2nd Endpoint: _____ Length: _____	Length: _____ Midpoint: _____

Directions: Points A, B, and C are collinear, in that order. Find the length of the missing segment.

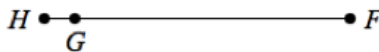| 17) Find BC if $AC = 19$, $BC = 19 + x$, and $AB = x + 6$.	18) Find AC if $AB = 15x + 6$, $AC = 2x^2 + 3x$, and $BC = 8$.	19) Find AB if $AC = -4x - 3$, $AB = x^2 + 6x + 6$, and $BC = 15$.

20) Find the location of the point R that divides the line segment $\overline{SQ}$ into two parts with the ratio of 2:9 The length of SQ is 66.	21) Find the location of the point G that divides the line segment $\overline{HF}$ into two parts with the ratio of 1:4 The length of HF is 32.	22) Find the location of the point U that divides the line segment $\overline{VT}$ into two parts with the ratio of 3:8 The length of VT is 47.85.
$S \bullet \underset{R}{\bullet} \rule{2cm}{0.4pt} \bullet Q$	$H \bullet \underset{G}{\bullet} \rule{2cm}{0.4pt} \bullet F$	$V \bullet \rule{2cm}{0.4pt} \underset{U}{\bullet} \bullet T$
$SR =$ _____	$HG =$ _____	$VT =$ _____

Directions: Copy the given line segments or rays. Then name the copy of the construction.

23)

A
B

Draw

Name: _____

24)

C ————— D

Draw

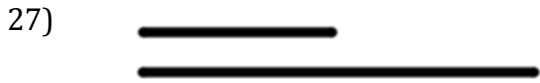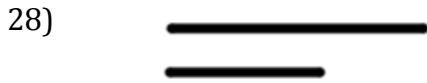Name: _____

25)

E   F

Draw

Name: _____

26)

G
H

Draw

Name: _____

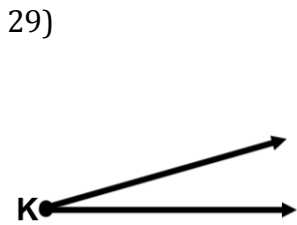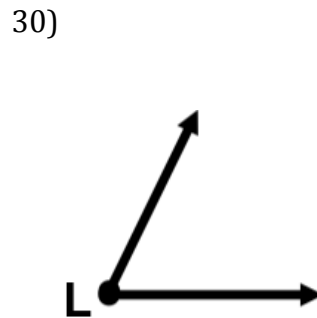Directions: Construct a line segment with a length equal to the sum of the lengths of the given line segments.

27)

Draw

28)

Draw

Directions: Copy the following angles. Then name the copy of the angle.

29)

K

Draw

30)

L

Draw

Name: _____

Name: _____