Zero The Math Hero
Standard Mathematical Elements - Lesson 2

Lesson 2 provides a discussion of three important geometric concepts:

- segments - identify segments; name segments; use correct symbol for segments

- rays - identify rays; name rays; use correct symbol for rays

- angles - identify angles; name angles; use correct symbol for angles

Lesson 2 includes an explanation of the different angle types based on their measures, using units called degrees.

Lesson 2 – Definitions

segment - a part of a line with two endpoints

Symbol for segment: $\overline{AB}$

ray - a part of a line with only one endpoint

Symbol for ray: $\overrightarrow{AB}$

angle - the union of two rays that share a common endpoint
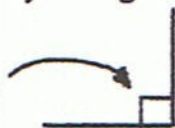
Symbol for angle: $\angle ABC$

vertex - the common endpoint of an angle

acute angle - an angle whose measure is less than 90 degrees

obtuse angle - an angle whose measure is more than 90 degrees, but less than 180 degrees

right angle - an angle whose measure is exactly 90 degrees

Symbol for right angle:

straight angle - an angle whose measure is exactly 180 degrees

supplementary angles - two angles whose sum is exactly 180 degrees

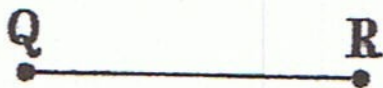**complementary angles** - two angles whose sum is exactly 90 degrees

Name:_____

Date:_____

Lesson 2 - Practice Problems
Segments, Rays, and Angles

1. Name this line segment.

Q _____ R

1. _____

2. Name this ray.

P   T

2. _____

3. Name this ray in two different ways.

A   B   C
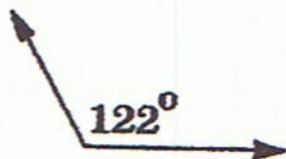
3. _____

4. What type of angle is this?

25°

4. _____

5. How would you classify this angle?
   A. Obtuse   B. Right   C. Straight   D. Acute

122°

5. _____

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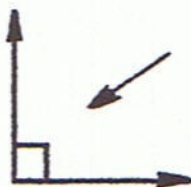
Lesson 2 - Practice Problems - Continued
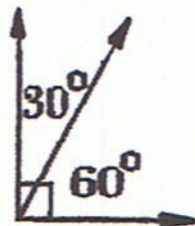### Segments, Rays, and Angles

6. What kind of angle is this?

6. _____

180°

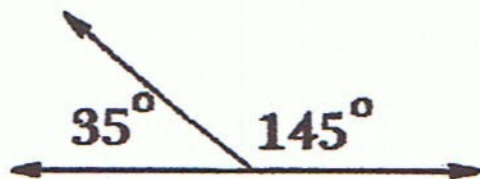7. How many degrees does this symbol represent?

7. _____

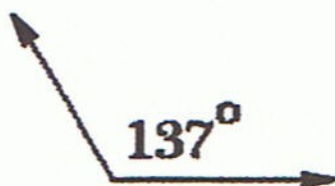8. Are these two angles a pair of complementary angles?

8. _____

30°

60°

9. Are these two angles a pair of supplementary angles?

9. _____

35°   **145°**

10. Classify this pair of angles as complementary
    or supplementary.

10. _____

137°

43°

Name: _____

Date: _____

Quiz – Definitions
Zero the Math Hero – Lesson 2

Directions: Fill in each blank with the letter that corresponds to the correct answer, A-J.

1. _____ an angle whose measure is exactly 180 degrees

2. _____ an angle whose measure is more than 90 degrees, but less than 180 degrees

3. _____ the union of two rays that share a common endpoint

4. _____ a part of a line with two endpoints

5. _____ two angles whose sum is exactly 180 degrees

6. _____ the common endpoint of an angle

7. _____ a part of a line with only one endpoint

8. _____ an angle whose measure is exactly 90 degrees

9. _____ two angles whose sum is exactly 90 degrees

10. _____ an angle whose measure is less than 90 degrees

A. acute angle

B. angle

C. complementary angles

D. obtuse angle

E. ray

F. right angle

G. segment

H. straight angle

I. supplementary angles

J. vertex

Lesson 2 - Practice Problems
Segments, Rays, and Angles

1. Name this line segment.

   Q   R

   1. $\overline{QR}$ (or $\overline{RQ}$)
   (or segment QR
        or segment RQ)

2. Name this ray.

   P   T

   2. $\overrightarrow{TP}$
   (or ray TP)

3. Name this ray in two different ways.

   A   B   C

   3. $\overrightarrow{AB}$, $\overrightarrow{AC}$
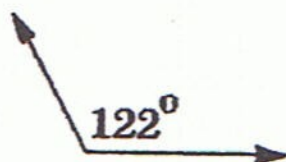   (or ray AB, ray AC)

4. What type of angle is this?

   $25°$

   4. acute angle

5. How would you classify this angle?
   A. Obtuse   B. Right   C. Straight   D. Acute

   $122°$

   5. A (obtuse)

Lesson 2 - Practice Problems - Continued
Segments, Rays, and Angles

6. What kind of angle is this?
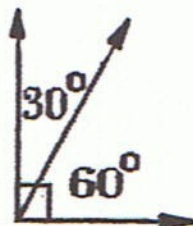
6. straight angle

180°

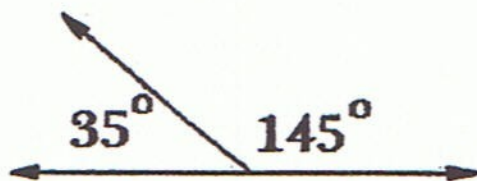7. How many degrees does this symbol represent?

7. 90°

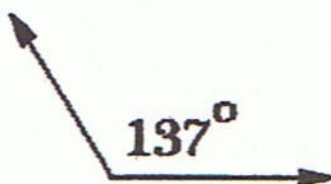8. Are these two angles a pair of complementary angles?

8. YES

30°
60°

9. Are these two angles a pair of supplementary angles?

9. YES

35°   145°

10. Classify this pair of angles as complementary or supplementary.

10. supplementary

137°

43°

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Name: ANSWER KEY

Date: _____

Quiz – Definitions
Zero the Math Hero – Lesson 2

Directions: Fill in each blank with the letter that corresponds to the correct answer, A-J.

1. **H** an angle whose measure is exactly 180 degrees

2. **D** an angle whose measure is more than 90 degrees, but less than 180 degrees

3. **B** the union of two rays that share a common endpoint

4. **G** a part of a line with two endpoints

5. **I** two angles whose sum is exactly 180 degrees

6. **J** the common endpoint of an angle

7. **E** a part of a line with only one endpoint

8. **F** an angle whose measure is exactly 90 degrees

9. **C** two angles whose sum is exactly 90 degrees

10. **A** an angle whose measure is less than 90 degrees

A. acute angle

B. angle

C. complementary angles

D. obtuse angle

E. ray

F. right angle

G. segment

H. straight angle

I. supplementary angles

J. vertex