

Ch 1.2 - Measurements of Segments and Angles

Objectives:

Apply Angle Addition to solve problems

Measure **segments** and **angles**.

Classify **angles** by size.

Name the parts of a **degree**.

Recognize **congruent angles** and **segments**.

Agenda:

- 1) JIGSAW/ Present/Check HW
- 2) "Exit Ticket"
- 3) Practice Problems
- 4) Worksheet 1-12 - (no electronic copy)

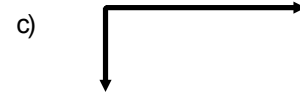
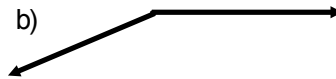
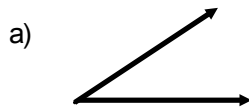
HW: p.14#1, 2, 4 - 6, 8 - 9, 10c, 11-17, 19, 20, 23

& Definitions for section 3 (ch 1.3)

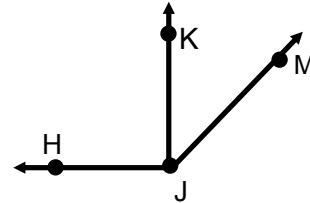
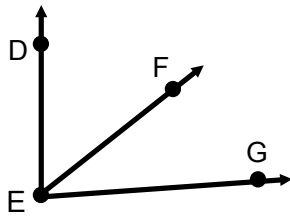
QUIZ on 1.1-1.3 Thurs/Friday

Practice Problems

1) Classify each angle below as acute, right or obtuse. Estimate the number of degrees in the angle.



2) In the diagram below, $\angle DEG = 80^\circ$, $\angle DEF = 50^\circ$, $\angle HJM = 120^\circ$, and $\angle HJK = 90^\circ$. Draw a conclusion about $\angle FEG$ and $\angle KJM$.

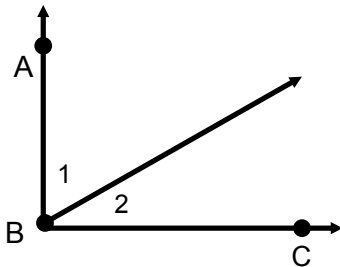


3) Given: $\angle ABC$ is a right angle.

$$\angle 1 = (3x + 4)^\circ$$

$$\angle 2 = (x + 6)^\circ$$

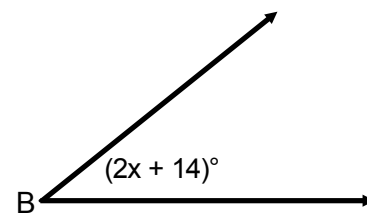
Find the $m\angle 1$ (the measure of $\angle 1$).



4) $\angle B$ is acute.

a) What are the restrictions on $m\angle B$?

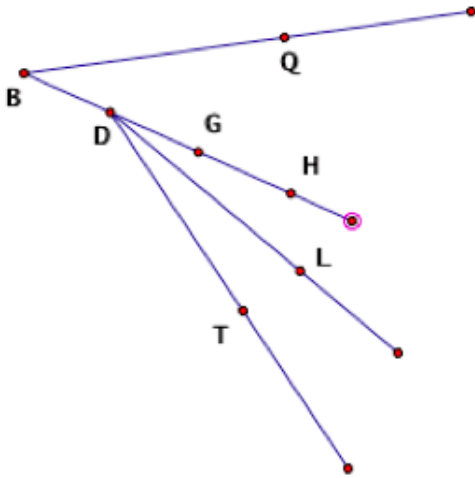
b) What are the restrictions on x ?



----- out of 6 pts

Day 3 Exit Ticket

Name _____



Based on the diagram to the left, find the following:

a) Give 2 other names for $\angle GDT$

b) $\overline{BG} \cup \overline{DH}$

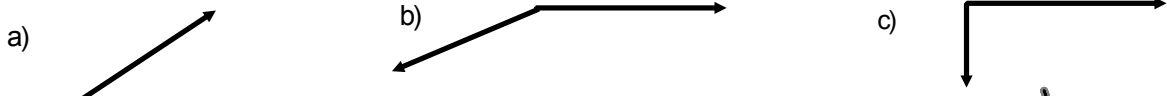
c) $\overline{BG} \cap \overline{GB}$

d) $\overline{LD} \cap \overline{DT}$

e) $\overline{DL} \cup \overline{DT}$

Practice Problems

1) Classify each angle below as acute, right or obtuse. Estimate the number of degrees in the angle.



adjacent = "next to" (common side/ray)

2) In the diagram below, $\angle DEG = 80^\circ$, $\angle DEF = 50^\circ$, $\angle HJM = 120^\circ$, and $\angle HJK = 90^\circ$. Draw a conclusion about $\angle FEG$ and $\angle KJM$.

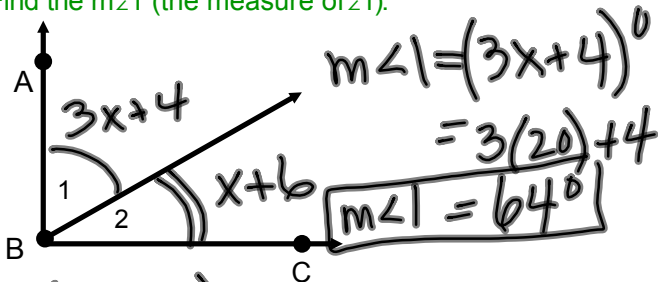
$m\angle DEG = m\angle DEF + m\angle FEG$
 $80^\circ = 50^\circ + m\angle FEG$
 $30^\circ = m\angle FEG$
 $\angle FEG \cong \angle KJM$

$m\angle HJM = m\angle HJK + m\angle KJM$
 $120^\circ = 90^\circ + m\angle KJM$
 $30^\circ = m\angle KJM$

3) Given: $\angle ABC$ is a right angle.

$\angle 1 = (3x + 4)^\circ$
 $\angle 2 = (x + 6)^\circ$

Find the $m\angle 1$ (the measure of $\angle 1$).

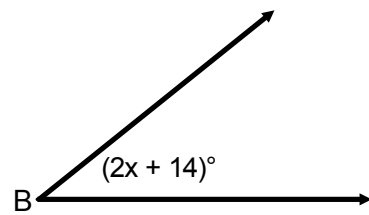


$(3x + 4) + (x + 6) = 90$
 $4x + 10 = 90$
 $4x = 80$
 $x = 20$

4) $\angle B$ is acute.

a) What are the restrictions on $m\angle B$?

b) What are the restrictions on x ?



$0^\circ < m\angle B < 90^\circ$

$0 < 2x + 14 < 90$

$0 < 2x + 14$ and $2x + 14 < 90$

$-14 < 2x$

$-7 < x$

and

$2x < 76$
 $x < 38$

$-7 < x < 38$