Geometry   Name _____
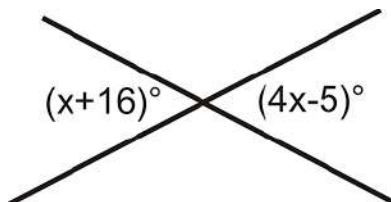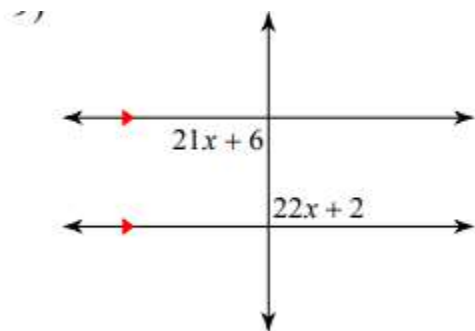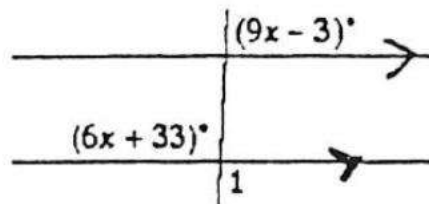
2.1 – 2.2 Quiz Review

1. Solve for the variable using what you know about angle relationships. *Show Work.*

a.

$(x+16)°$ $(4x-5)°$

b.

$(9x-3)°$
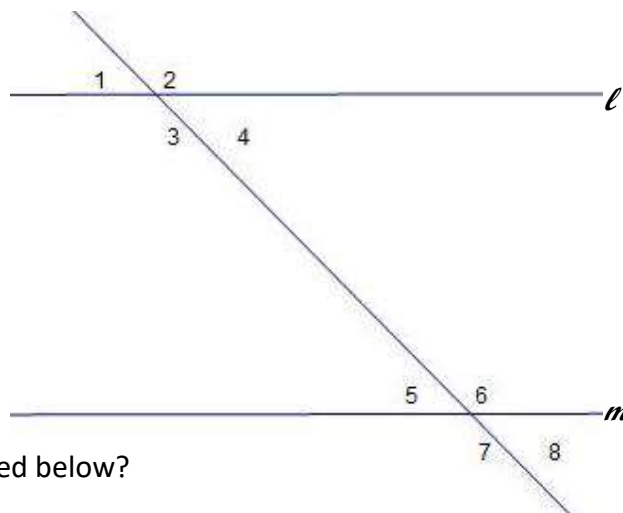
$(6x+33)°$

1

$21x+6$

$22x+2$

For questions 1-7 use the image on the right. For all questions, lines ℓ and m are parallel.

1) List all the pairs of corresponding angles.

2) List all the pairs of alternate exterior angles.

1   2

3   4

ℓ

3) List all the pairs of vertical angles.
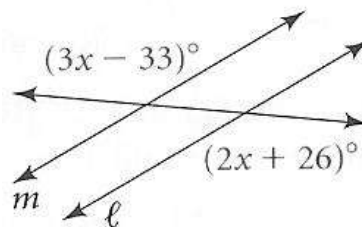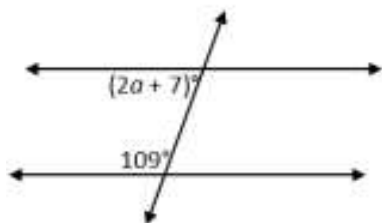
4) List all the pairs of same side interior angles.

5   6

7   8

m

What vocabulary term best classifies the angle pairs listed below?

5) <3 and <6 or <4 and <5

6) <5 and <6 or <2 and <4 or <5 and <7

7) <1 and <7 or <2 and <8

Find the value of the variable to make the lines parallel.

$(2a + 7)°$

$109°$

$(3x - 33)°$

$(2x + 26)°$

m ℓ

Find the measure of all given letters.

g

m

r p

s

b $85°/d$ $k \mid h$ $48°$

$143°$ a c e f
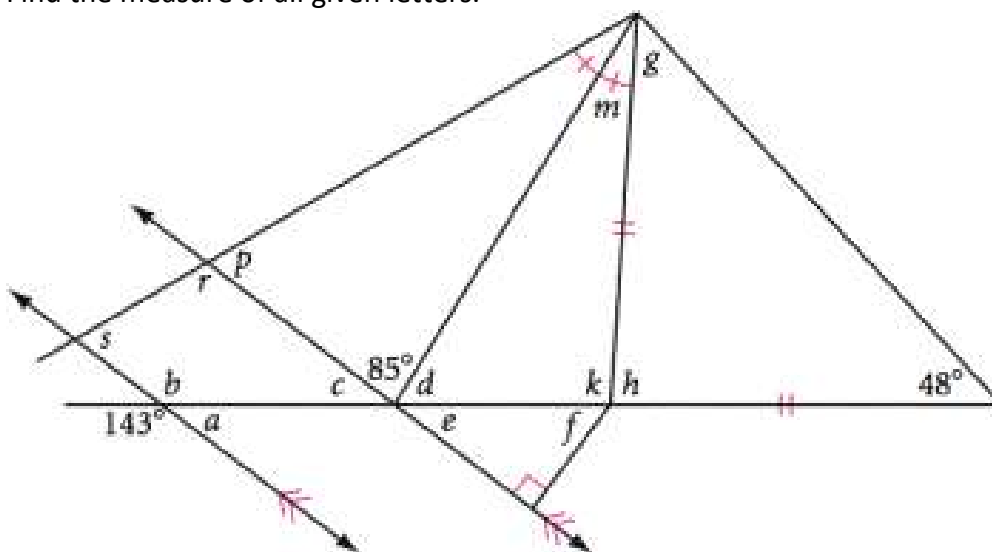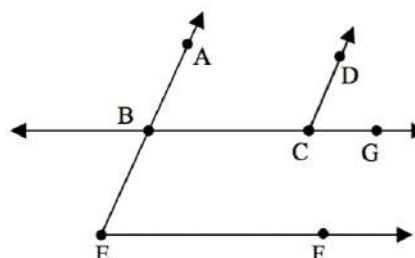
6. Given: $\overrightarrow{HJ} \parallel \overrightarrow{LM}$

$\overline{HG} \parallel \overline{LK}$

Prove: $m\angle 5 = m\angle 8$

G

K

5   6 7   J

H   Q

8   M

L
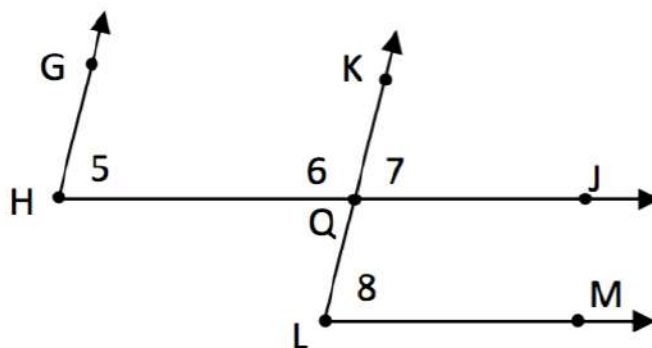
Given: $\overline{BC} \parallel \overline{EF}$, $\angle BEF \cong \angle DCG$
Prove: $\overline{AB} \parallel \overline{DC}$

In the diagram below, $\overleftrightarrow{MN} // \overleftrightarrow{AF}$, m∠ABC = 34°, and m∠FBD = 53°.
Find the measure of each indicated angle. Provide reasoning to support your answers.

a. m∠EBF = _____
Reason
_____

b. m∠EBA = _____

Reason_____

c. m∠DBC = _____

Reason_____

d. m∠EKN = _____
Reason_____

d. m∠MKB = _____
Reason_____