Name: _____ **Date:** _____

CC Geometry

Unit 4 Test Review
Quadrilaterals

1. Determine whether the statement is (A)lways, (S)ometimes, or (N)ever True.

a) The diagonals of a rectangle are congruent.	A	S	N
b) The diagonals of a parallelogram are perpendicular.	A	S	N
c) A parallelogram is a rhombus.	A	S	N
d) The diagonals of a rhombus bisect each other.	A	S	N
e) A rhombus is equilateral.	A	S	N

2. Quadrilateral ABCD is a parallelogram.

a) m∠BAC = 54°,
find m∠DCA = _____

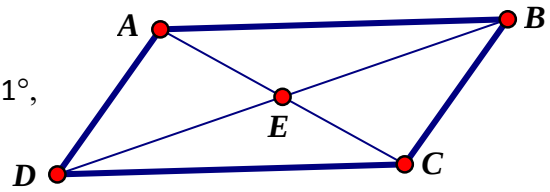
b) m∠ADC = 78°,
find m∠DAB = _____

c) m∠DCB = 142° & m∠DCA = 37°,
find m∠BAC= _____

d) m∠ABC = 73° & m∠DBA = 31°,
find m∠DBC = _____

e) AE = 14 cm & DE = 18 cm,
find EB = _____

f) EC = 10 cm & EB = 15 cm,
find AC = _____



3. Quadrilateral ABCD is a rhombus.

a) m∠ADE = 27°,
find m∠DAE = _____
find m∠ABD = _____

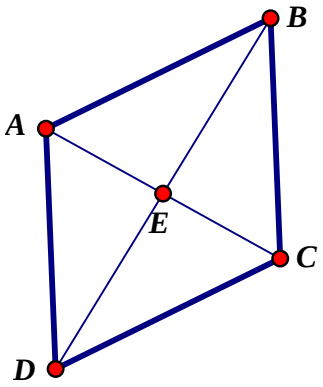
b) m∠CAB = 71°,
find m∠CEB = _____

c) m∠ABC = 64°
find m∠ABE= _____

d) m∠DAB = 140°
find m∠ADE = _____

e) AE = 3 cm & DE = 4 cm,
find DB = _____
find AD = _____

f) AD = 13 cm & BD = 24 cm,
find AC = _____



4. Quadrilateral ABCD is a rectangle.

a) m∠BAC = 27°,

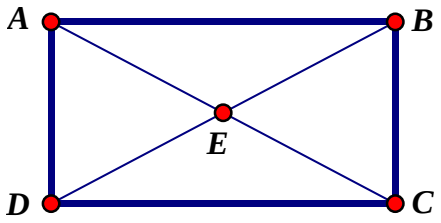
find m∠ACB = _____

find m∠DAC = _____

b) m∠ADE= 74°

find m∠DAE= _____

find m∠BEC= _____



c) m∠AEB= 144°,

find m∠CAB = _____

d) m∠BCA = 78°

find m∠DAC = _____

e) DE = 9cm,

find AC = _____

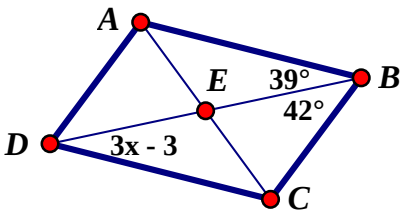
f) AD= 6 cm & DC = 8 cm,

find AE = _____

5. Find the value for the variables.

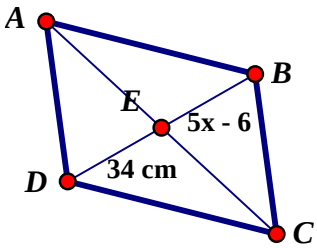
a) Parallelogram

x = _____



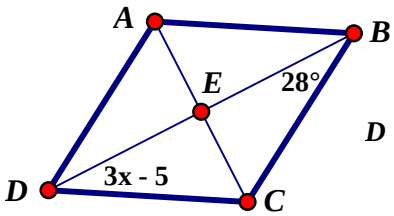
b) Parallelogram

x = _____



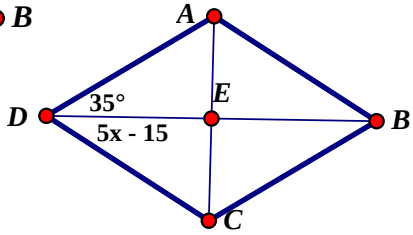
c) Rhombus

x = _____



d) Rhombus

x = _____



6. Given parallelogram ABCD, determine the measurements.

a) m∠DCB = _____

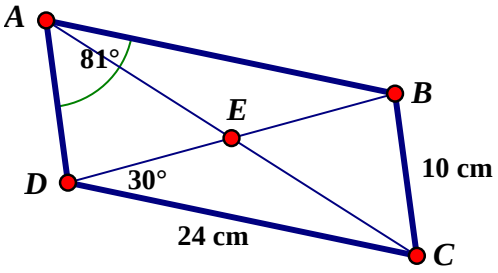
b) m∠ADC = _____

c) m∠ADB = _____

d) m∠ABD = _____

e) AD = _____

f) AB = _____



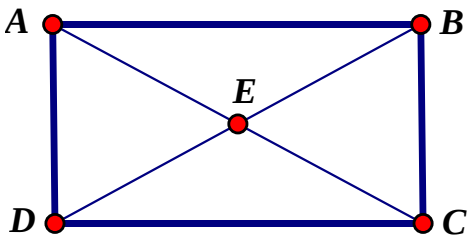
7. Determine which quadrilateral has these properties? (Pick all the correct answers).

	Parallelogram	**Rectangle**	**Rhombus**	**Square**
a) Diagonals are congruent				
b) Diagonals are perpendicular				
c) Diagonals bisect each other				

8. Determine the correct answers.

a) A square is a rectangle	Always	Sometimes	Never
b) A parallelogram is a rhombus	Always	Sometimes	Never
c) A rhombus is a square	Always	Sometimes	Never
d) A square is a parallelogram	Always	Sometimes	Never

9. Given rectangle ABCD and the given information to solve each problem.



a) AC = 4x – 54 and BD = 33 + x, find x = _____ & BD = _____

b) AC = 4x – 60 and AE = x + 5, find x = _____ & EC = _____

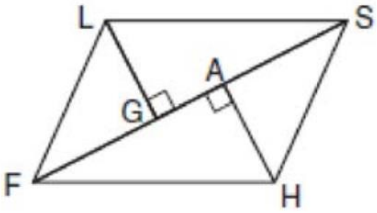
c) m∠BAC = 4x + 12 and m∠DAC = 5x + 24, find x = _____ & m∠DAC = _____

d) AE = 9 cm, DC = 15 cm, find AD = _____ (round to nearest hundredth)

e) m∠EAD = 63°, m∠AED = 4x + 8, find x = _____

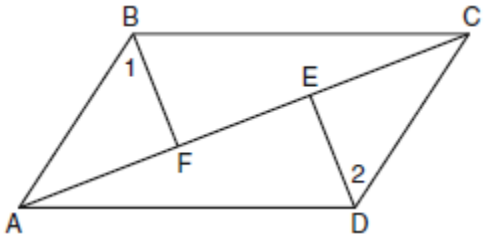
10. Given: parallelogram FLSH, diagonal $\overline{FGAS}$, $\overline{LG} \perp \overline{FS}$, $\overline{HA} \perp \overline{FS}$

Prove: $\Delta LGS \cong \Delta HAF$



11. Given: Quadrilateral *ABCD*, diagonal $\overline{AFEC}$, $\overline{AE} \cong \overline{FC}$, $\overline{BF} \perp \overline{AC}$, $\overline{DE} \perp \overline{AC}$, $\angle 1 \cong \angle 2$

Prove: *ABCD* is a parallelogram.



12. Given: *PROE* is a rhombus, $\overline{SEO}$, $\overline{PEV}$, $\angle SPV \cong \angle VOS$

Prove: $\overline{SE} \cong \overline{EV}$