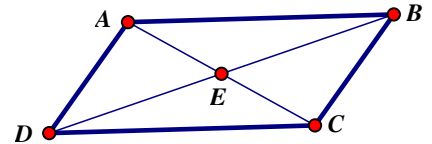


1. Determine whether the statement is (A)lways, (S)ometimes, or (N)ever True.

- | | | | |
|--|---|---|---|
| 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 |

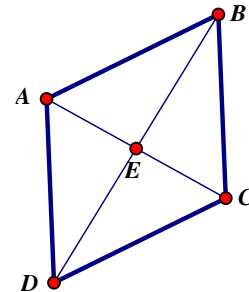
2. Quadrilateral ABCD is a parallelogram.

- | | |
|---|--|
| a) $m\angle BAC = 54^\circ$,
find $m\angle DCA =$ _____ | b) $m\angle ADC = 78^\circ$,
find $m\angle DAB =$ _____ |
| c) $m\angle DCB = 142^\circ$ & $m\angle DCA = 37^\circ$,
find $m\angle BAC =$ _____ | d) $m\angle ABC = 73^\circ$ & $m\angle DBA = 31^\circ$,
find $m\angle DBC =$ _____ |
| e) $AE = 14$ cm & $DE = 18$ cm,
find $EB =$ _____ | f) $EC = 10$ cm & $EB = 15$ cm,
find $AC =$ _____ |



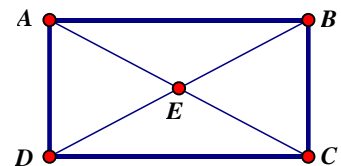
3. Quadrilateral ABCD is a rhombus.

- | | |
|---|---|
| a) $m\angle ADE = 27^\circ$,
find $m\angle DAE =$ _____
find $m\angle ABD =$ _____ | b) $m\angle CAB = 71^\circ$,
find $m\angle CEB =$ _____ |
| c) $m\angle ABC = 64^\circ$
find $m\angle ABE =$ _____ | d) $m\angle DAB = 140^\circ$
find $m\angle ADE =$ _____ |
| e) $AE = 3$ cm & $DE = 4$ cm,
find $DB =$ _____
find $AD =$ _____ | f) $AD = 13$ cm & $BD = 24$ cm,
find $AC =$ _____ |



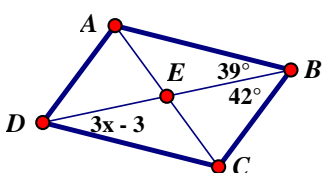
4. Quadrilateral ABCD is a rectangle.

- | | |
|---|---|
| a) $m\angle BAC = 27^\circ$,
find $m\angle ACB =$ _____
find $m\angle DAC =$ _____ | b) $m\angle ADE = 74^\circ$
find $m\angle DAE =$ _____
find $m\angle BEC =$ _____ |
| c) $m\angle AEB = 144^\circ$,
find $m\angle CAB =$ _____ | d) $m\angle BCA = 78^\circ$
find $m\angle DAC =$ _____ |
| e) $DE = 9$ cm,
find $AC =$ _____ | f) $AD = 6$ cm & $DC = 8$ cm,
find $AE =$ _____ |

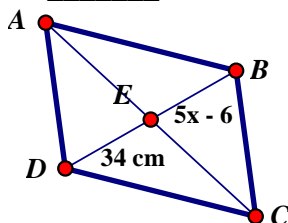


5. Find the value for the variables.

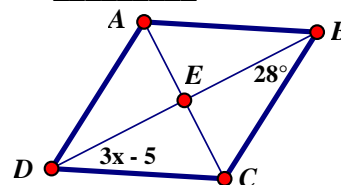
- a) Parallelogram
 $x =$ _____



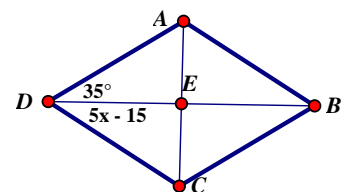
- b) Parallelogram
 $x =$ _____



- c) Rhombus
 $x =$ _____

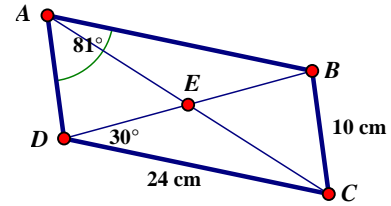


- d) Rhombus
 $x =$ _____



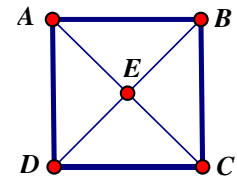
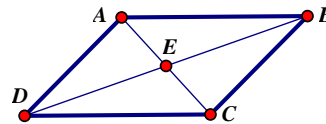
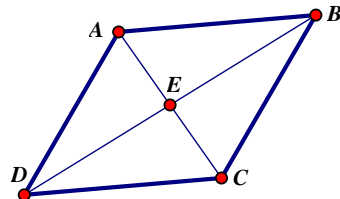
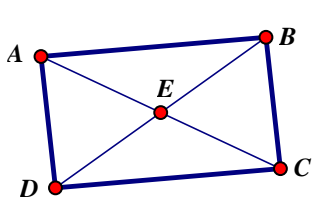
6. Given parallelogram ABCD, determine the measurements.

- a) $m\angle DCB =$ _____ b) $m\angle ADC =$ _____
 c) $m\angle ADB =$ _____ d) $m\angle ABD =$ _____
 e) $AD =$ _____ f) $AB =$ _____



7. Classify the triangle as specific as you can (by side and by angle).

- a) In rectangle ABCD where $m\angle DAC = 65^\circ$, what type of Δ is ΔADC ? _____
 b) In rhombus ABCD where $m\angle EDA = 20^\circ$, what type of Δ is ΔADC ? _____
 c) In parallelogram ABCD where $m\angle DAE = 85^\circ$ & $m\angle DBC = 19^\circ$, what type of Δ is ΔDEA ? _____
 d) In square ABCD, what type of Δ is ΔDAB ? _____



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

- A (Parallelogram) B (Rectangle) C (Rhombus) D (Square)

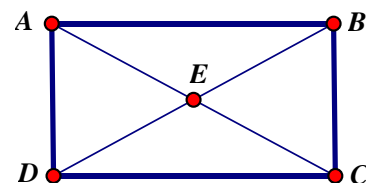
- a) Diagonals are congruent _____
 b) Equilateral _____
 c) Diagonals bisect each other _____

9. 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 |

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

- a) $AC = 4x - 54$ and $BD = 33 + 1x$, find $x =$ _____ & $BD =$ _____
 b) $AC = 4x - 60$ and $AE = x + 5$, find $x =$ _____ & $EC =$ _____
 c) $m\angle BAC = 4x + 12$ and $m\angle DAC = 5x + 24$, find $x =$ _____ & $m\angle DAC =$ _____
 d) $AE = 9$ cm, $DC = 15$ cm, find $AD =$ _____ (2 decimal places)



e) $m\angle EAD = 63^\circ$, $m\angle AED = 4x + 8$, find $x =$ _____