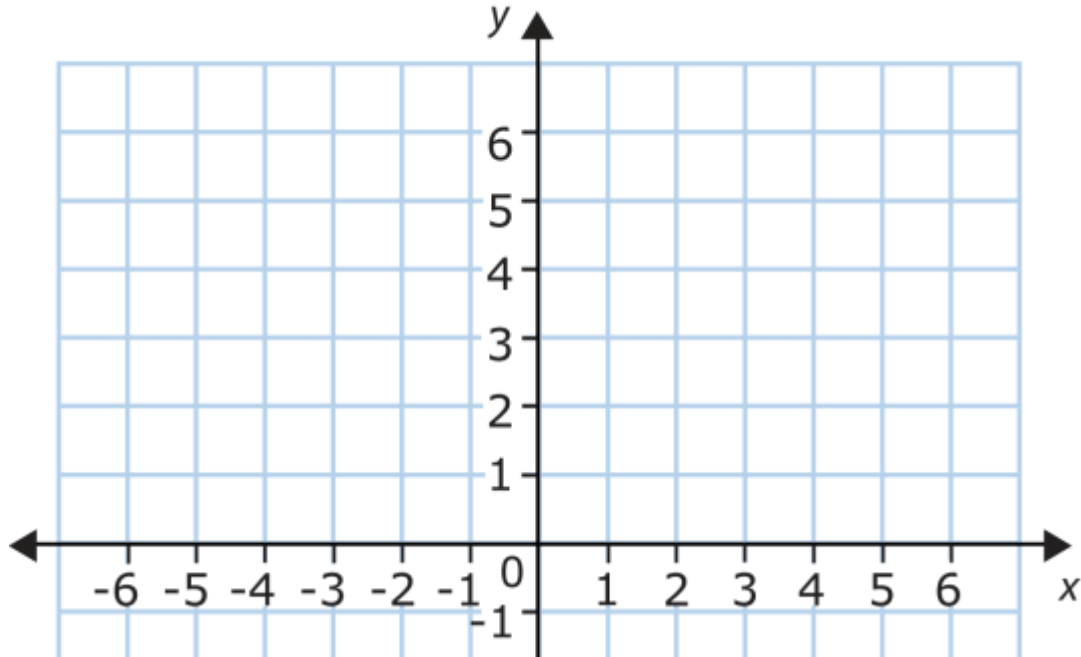Classify the quadrilateral formed by the points A(-3,4) B(-2,0) C(2,1) and D(1,5).

1. Is ABCD a parallelogram? Justify your answer with numbers.
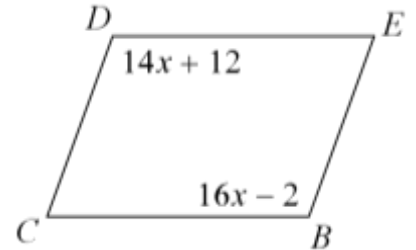
2. Is ABCD a rectangle? Justify your answer with numbers.

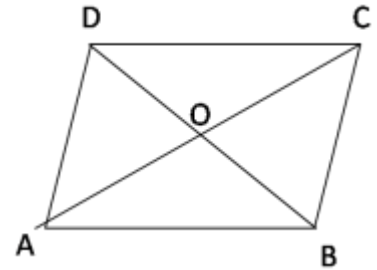3. Is ABCD a rhombus? Justify your answer with numbers.

4. What is the most specific name for ABCD? Explain.

CO-C11a

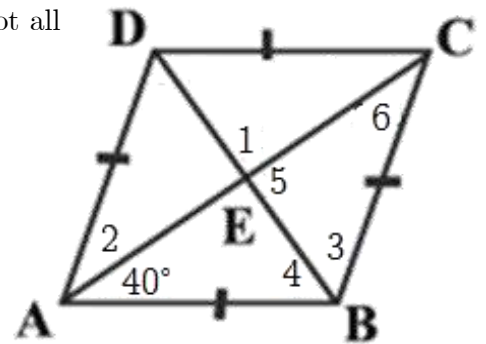5. CDEB is a parallelogram. Find the measure of $\angle E$

6. ABCD is a parallelogram with diagonals crossing at O. Suppose $DB = 6x + 12$ and $DO = 2x + 8$. Find the length of OB.
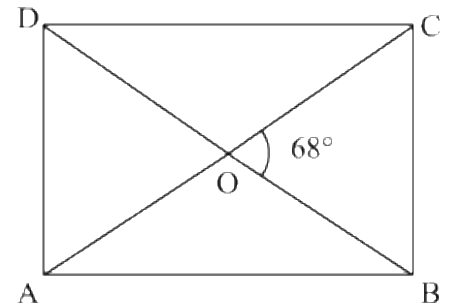
CO-C11b

7. ABCD is a rhombus. Match the equal values in the lists below. Not all the measures will be used, and some are used more than once.

Angles	Measures
1	40°
2	50°
3	30°
4	45°
5	90
6	60°

8. ABCD is a rectangle with diagonals crossing at O. Find measures of:

$\angle CAB$: $\angle BDA$: $\angle ABC$:
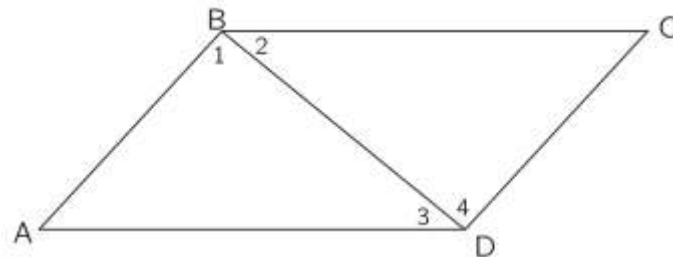
SRT-B5b

9. Complete the proof using the choices provided. Use as many steps as needed.

GIVEN: $\overline{AB} \parallel \overline{CD}$ and $\overline{BC} \parallel \overline{DA}$ PROVE: $\overline{AB} \cong \overline{CD}$

Statements	Reasons
1. $\overline{AB} \parallel \overline{CD}$ and $\overline{BC} \parallel \overline{DA}$	1. Given

Statement and Reason Choices, feel free to ignore (some are distractors)

Vertical Angles   Alternate Interior Angles   ASA   AAS   SSS   HL   SAS   Reflexive Property

$\angle 1 \cong \angle 2$ and $\angle 3 \cong \angle 4$ $\angle 1 \cong \angle 4$ and $\angle 2 \cong \angle 3$ Def of bisect $\overline{DB} \cong \overline{BD}$ $\angle A \cong \angle C$

$\overline{AB} \cong \overline{CD}$ $\triangle ABD \cong \triangle CDB$ $\triangle BDA \cong \triangle BDC$ CPCTC