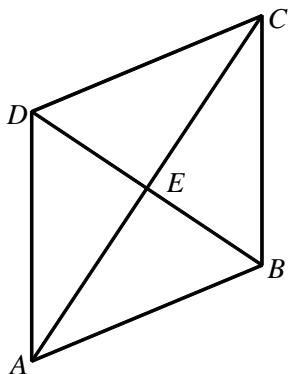


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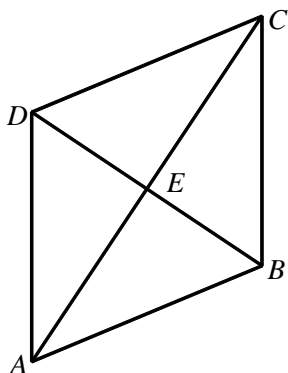
P.I. G.G.39: Investigate, justify, and apply theorems about special parallelograms (rectangles, rhombuses, squares) involving their angles, sides, and diagonals

1. Given $ABCD$ is a rhombus, $m\angle BAC = 30$, and $AD = 24$. Find the length of \overline{DE} .



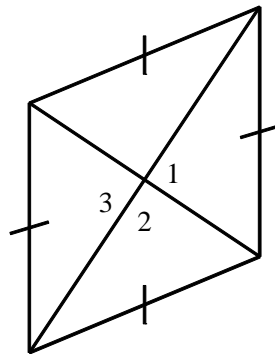
- [A] 9 [B] 12 [C] 17 [D] 16

2. Given $ABCD$ is a rhombus, $m\angle DCB = 60$, and $EB = 18$. Find the length of \overline{DC} .



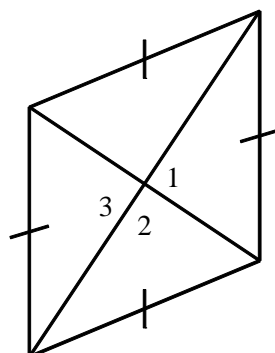
3. In rhombus $ABCD$, $AB = 8$ and $AC = 15$. Find BD to the nearest tenth.
- [A] 5.6 [B] 25.4 [C] 7.9 [D] 21.9

4. Find the value of each variable in the parallelogram. $m\angle 1 = 2x$, $m\angle 2 = x + y$, and $m\angle 3 = 10z$.



- [A] $x = 45$, $y = 45$, $z = 9$
 [B] $x = 45$, $y = 50$, $z = 4$
 [C] $x = 90$, $y = 90$, $z = 18$
 [D] $x = 90$, $y = 95$, $z = 13$

5. Find the value of each variable in the parallelogram. $m\angle 1 = 3x$, $m\angle 2 = x + y$, and $m\angle 3 = 5z$.



- [A] $x = 30$, $y = 65$, $z = 13$
 [B] $x = 60$, $y = 125$, $z = 31$
 [C] $x = 30$, $y = 60$, $z = 18$
 [D] $x = 60$, $y = 120$, $z = 36$

Geometry Practice: G.G.39 #7

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[1] B

[2] 36

[3] A

[4] A

[5] C