

Name: _____

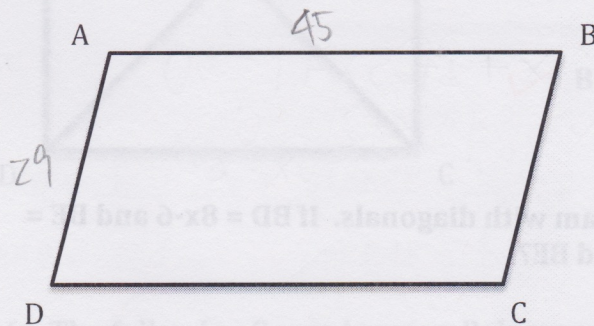
Date: _____

Pre-Test on Quadrilaterals

High $\frac{6.75}{10}$

Directions: For problems 1-10, there are various quadrilaterals with given lengths and angles. Solve for the lengths and angles for which you are asked. Keep in mind that these figures are **NOT** necessarily drawn to scale. If a length or an angle that you are solving for is not a whole number, round to the nearest tenth. This assignment will not be graded, but it will be used to plan out future lessons on this topic. **Please show your work.**

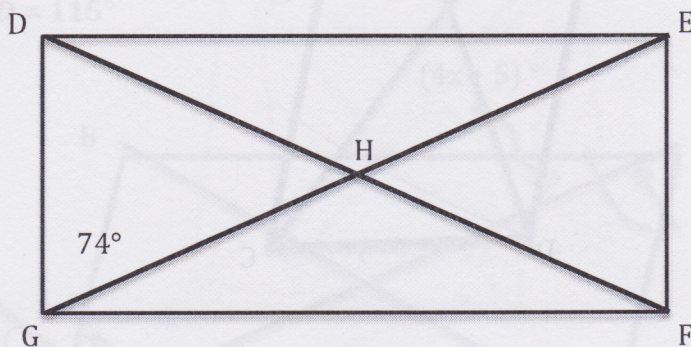
1. The figure below is a parallelogram. If $AB = 45$ and $AD = 29$, what are the length values for BC and DC ?



$$\checkmark BC = 45$$

$$\checkmark DC = 29$$

2. The figure below is a rectangle with diagonals. What are the following angle measures?



$$\checkmark m\angle DEF = 90^\circ$$

$$\checkmark m\angle EGF = 16^\circ$$

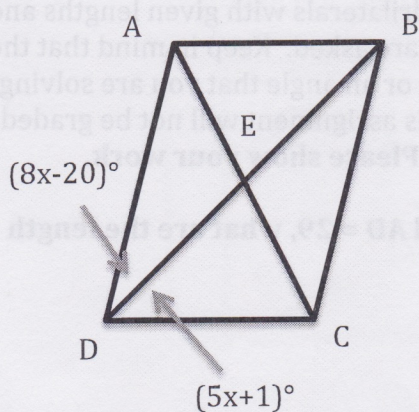
$$\checkmark m\angle DEH = 16^\circ$$

$$\checkmark m\angle HEF = 74^\circ$$

$$\checkmark m\angle DHE = 148^\circ$$

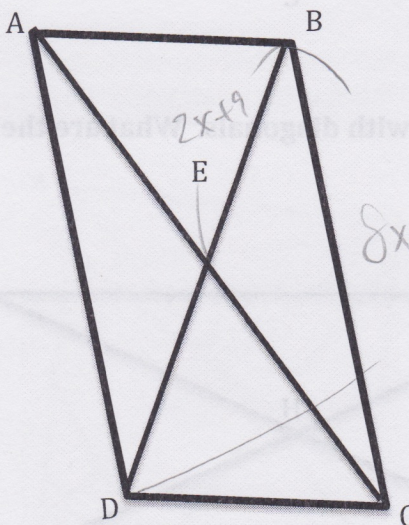
$$\checkmark m\angle EHF = 32^\circ$$

3. The figure below is a rhombus with diagonals. If $m\angle ADE = (8x-20)^\circ$ and the $m\angle CDE = (5x+1)^\circ$, what is the value of x ?



$x = \underline{\hspace{2cm}}$

4. The figure below is a parallelogram with diagonals. If $BD = 8x-6$ and $BE = 2x+9$, what is the length of BD and BE?



\times \updownarrow $BD = \underline{21}$
 \times \updownarrow $BE = \underline{42}$

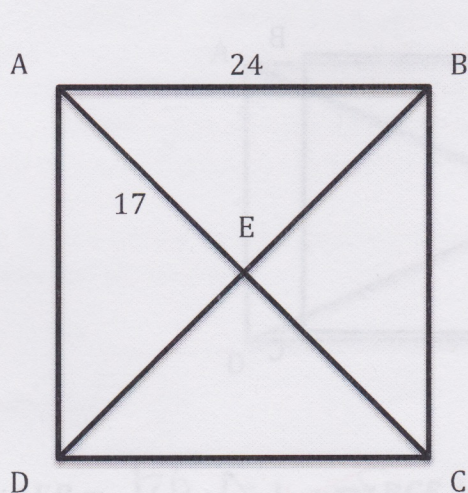
$$2x+9 + 2x+9 = 8x-6$$

$$4x+18 = 8x-6$$

$$24 = 4x$$

$$6 = x$$

5. The following figure is a square with diagonals. Find the following lengths and angle measurements.



✓ $m\angle ADC = 90^\circ$

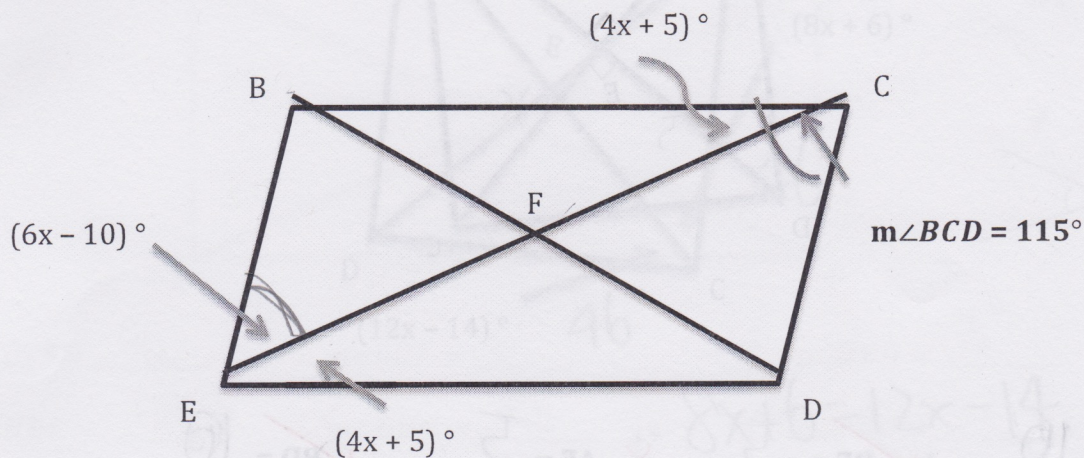
✓ $m\angle BCE = 45^\circ$

✓ $CE = 17$

✓ $BC = 24$

6. The following figure is a parallelogram with diagonals. Given the following information, what is the $m\angle BEF$?

- $m\angle BCF = (4x + 5)^\circ$
- $m\angle BEF = (6x - 10)^\circ$
- $m\angle DEF = (4x + 5)^\circ$
- $m\angle BCD = 115^\circ$



✓ $m\angle BEF = 62^\circ$

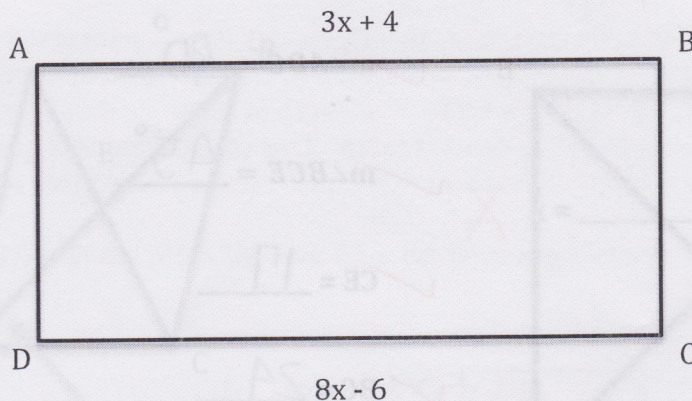
$$6x - 10 + 4x + 5 = 115$$

$$10x - 5 = 115$$

$$10x = 120$$

$$x = 12$$

7. The figure below is a rectangle. Given that length $AB = 3x + 4$ and length $DC = 8x - 6$, what is the numerical length of AB ?



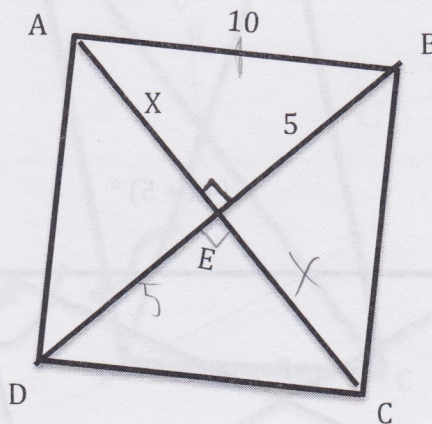
✓ $AB = 10$

$$8x - 6 = 3x + 4$$

$$5x = 10$$

$$x = 2$$

8. The figure below is a rhombus with diagonals. Given that $AE = X$, $AB = 10$, and $BE = 5$, what is the value of the following lengths?



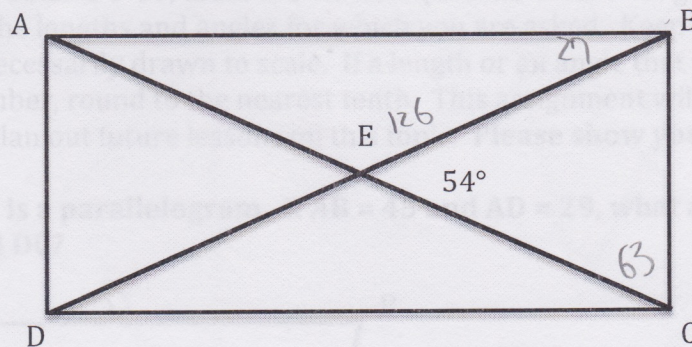
✓ $BC = 10$

✓ $DE = 5$

✗ $AE = 5$

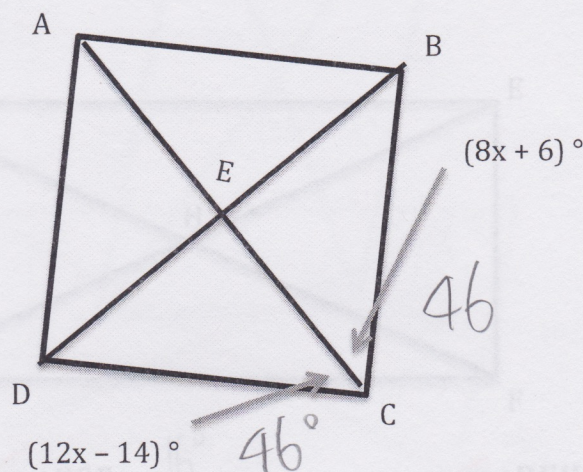
✓ $BD = 10$

9. The figure below is a rectangle with diagonals. If $m\angle BEC = 54^\circ$, find the following angle measures:



$\checkmark m\angle AEB = 126^\circ$ $\checkmark m\angle BCE = 63^\circ$ $\checkmark m\angle ADB = 63^\circ$
 $\checkmark m\angle ABD = 27^\circ$ $\checkmark m\angle DAE = 63^\circ$ $\checkmark m\angle EBC = 63^\circ$

10. The figure below is a rhombus with diagonals. Given that $m\angle BCE = (8x + 6)^\circ$ and $m\angle DCE = (12x - 14)^\circ$, what is the $m\angle ADC$?



$\checkmark m\angle DEF = 90^\circ$ $\checkmark m\angle CEF = 90^\circ$ $\checkmark m\angle DEH = 16^\circ$
 $\checkmark m\angle HEF = 174^\circ$ $\checkmark m\angle DHE = 108^\circ$
 $\times m\angle ADC = 92$

$8x + 6 = 12x - 14$
 $20 = 4x$
 $5 = x$

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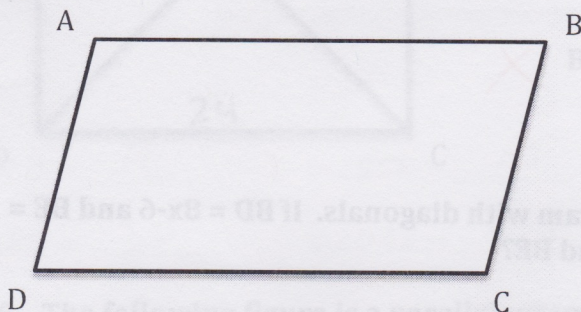
Date: 3/24/10

Pre-Test on Quadrilaterals

Medium $\frac{3}{10}$

Directions: For problems 1-10, there are various quadrilaterals with given lengths and angles. Solve for the lengths and angles for which you are asked. Keep in mind that these figures are **NOT** necessarily drawn to scale. If a length or an angle that you are solving for is not a whole number, round to the nearest tenth. This assignment will not be graded, but it will be used to plan out future lessons on this topic. **Please show your work.**

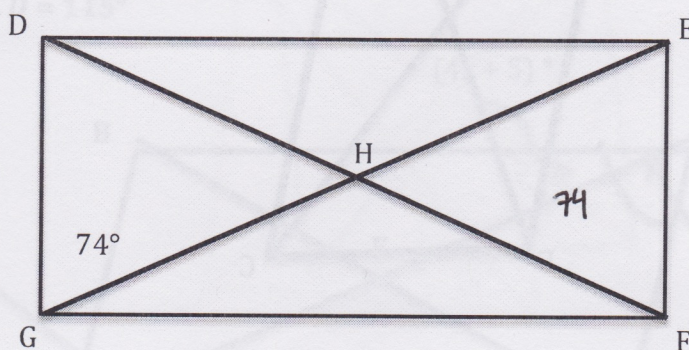
1. The figure below is a parallelogram. If $AB = 45$ and $AD = 29$, what are the length values for BC and DC ?



✓ $BC = \underline{45}$

✓ $DC = \underline{29}$

2. The figure below is a rectangle with diagonals. What are the following angle measures?



✗ $m\angle DEF = \underline{90}$

✗ $m\angle EGF = \underline{90}$

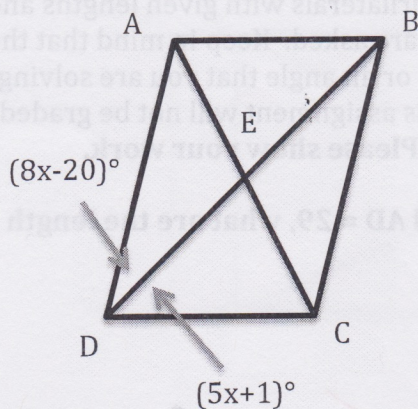
✗ $m\angle DEH = \underline{70}$

✗ $m\angle HEF = \underline{20}$

✗ $m\angle DHE = \underline{20}$

✗ $m\angle EHF = \underline{74}$

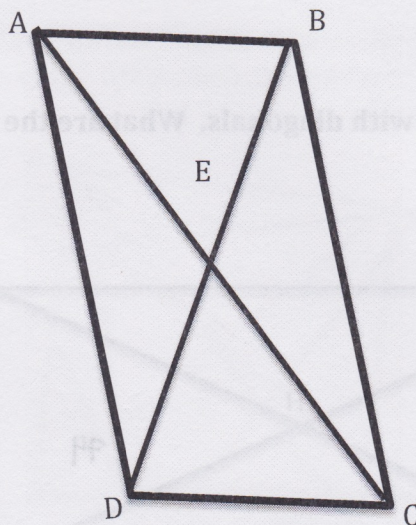
3. The figure below is a rhombus with diagonals. If $m\angle ADE = (8x-20)^\circ$ and the $m\angle CDE = (5x+1)^\circ$, what is the value of x ?



$x = 7$

$8x-20 = 5x+1$

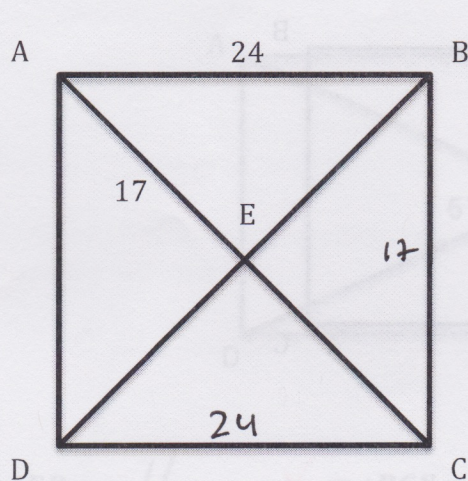
4. The figure below is a parallelogram with diagonals. If $BD = 8x-6$ and $BE = 2x+9$, what is the length of BD and BE?



$BD = 12$

$BE = 17$

5. The following figure is a square with diagonals. Find the following lengths and angle measurements.



$m\angle ADC = 41$

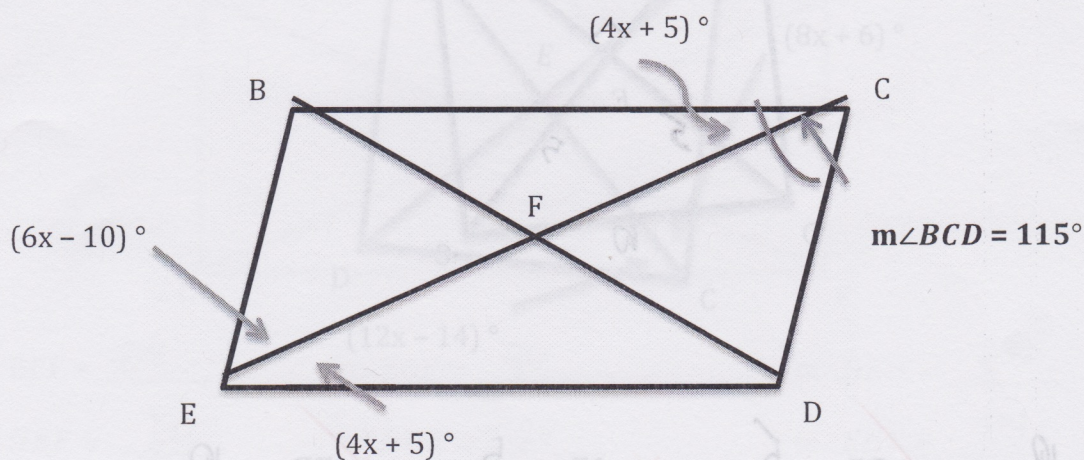
$m\angle BCE = \uparrow$

$CE = 17$

$BC = 17$

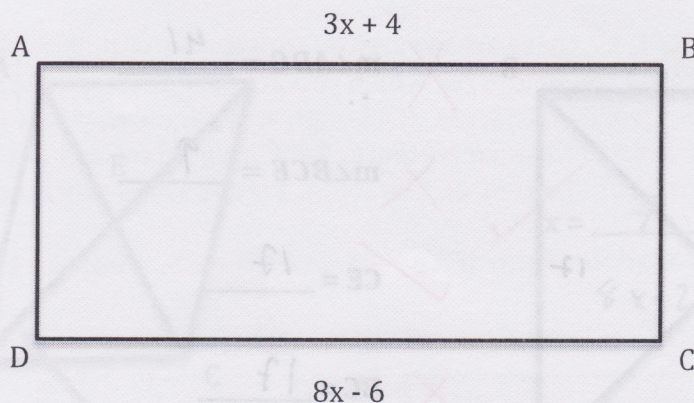
6. The following figure is a parallelogram with diagonals. Given the following information, what is the $m\angle BEF$?

- $m\angle BCF = (4x + 5)^\circ$
- $m\angle BEF = (6x - 10)^\circ$
- $m\angle DEF = (4x + 5)^\circ$
- $m\angle BCD = 115^\circ$



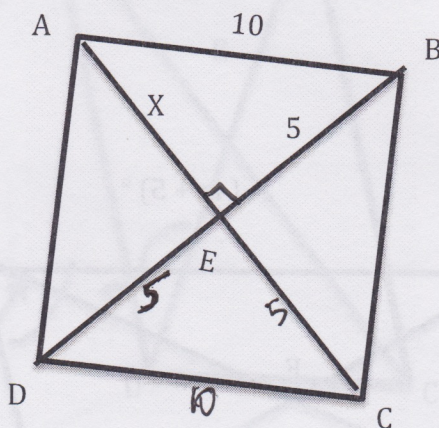
$m\angle BEF = 21$

7. The figure below is a rectangle. Given that length $AB = 3x + 4$ and length $DC = 8x - 6$, what is the numerical length of AB ?



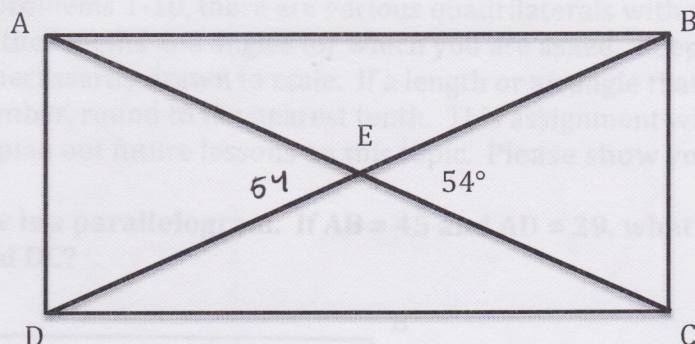
\times $AB = 2$

8. The figure below is a rhombus with diagonals. Given that $AE = X$, $AB = 10$, and $BE = 5$, what is the value of the following lengths?



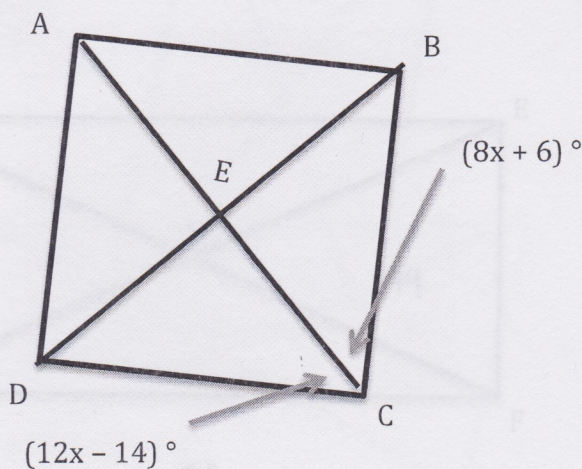
\checkmark $BC = 10$ \checkmark $DE = 5$ \times $AE = 5$ \checkmark $BD = 10$

9. The figure below is a rectangle with diagonals. If $m\angle BEC = 54^\circ$, find the following angle measures:



$\times m\angle AEB = \underline{11}$ $\times m\angle BCE = \underline{15}$ $\times m\angle ADB = \underline{16}$
 $\times m\angle ABD = \underline{20}$ $\times m\angle DAE = \underline{20}$ $\times m\angle EBC = \underline{11}$

10. The figure below is a rhombus with diagonals. Given that $m\angle BCE = (8x + 6)^\circ$ and $m\angle DCE = (12x - 14)^\circ$, what is the $m\angle ADC$?



$\times m\angle DEF = \underline{30}$ $\times m\angle ECF = \underline{90}$ $\times m\angle DEH = \underline{70}$
 $\times m\angle HEF = \underline{20}$ $\times m\angle DHE = \underline{20}$ $\times m\angle EHF = \underline{44}$
 $\times m\angle ADC = \underline{5}$

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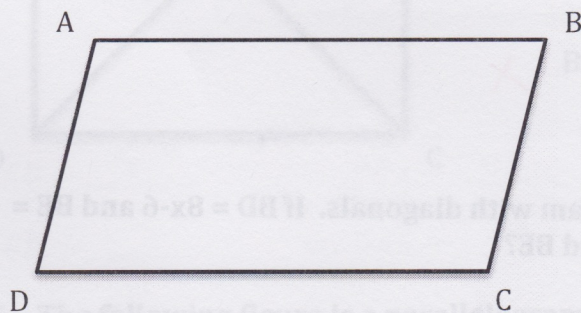
Date: _____

Pre-Test on Quadrilaterals

Low $\frac{0}{10}$

Directions: For problems 1-10, there are various quadrilaterals with given lengths and angles. Solve for the lengths and angles for which you are asked. Keep in mind that these figures are **NOT** necessarily drawn to scale. If a length or an angle that you are solving for is not a whole number, round to the nearest tenth. This assignment will not be graded, but it will be used to plan out future lessons on this topic. **Please show your work.**

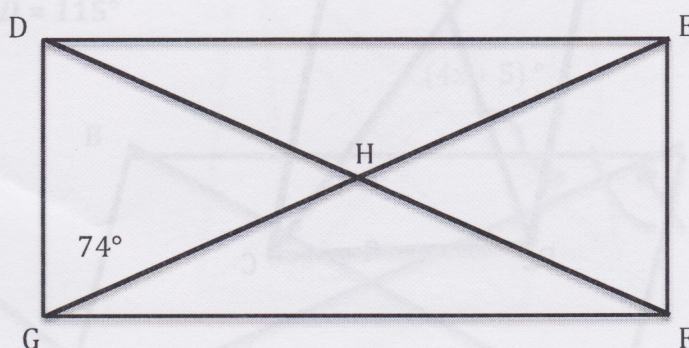
1. The figure below is a parallelogram. If $AB = 45$ and $AD = 29$, what are the length values for BC and DC ?



$$\times BC = \underline{45}$$

$$\times DC = \underline{29}$$

2. The figure below is a rectangle with diagonals. What are the following angle measures?



$$\times m\angle DEF = \underline{64}$$

$$\times m\angle EGF = \underline{30}$$

$$\times m\angle DEH = \underline{98}$$

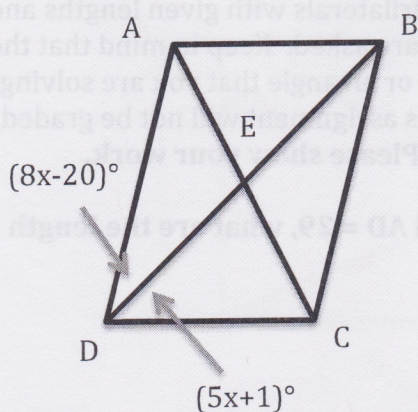
$$\times m\angle HEF = \underline{103}$$

$$\times m\angle DHE = \underline{76}$$

$$\times m\angle EHF = \underline{23}$$

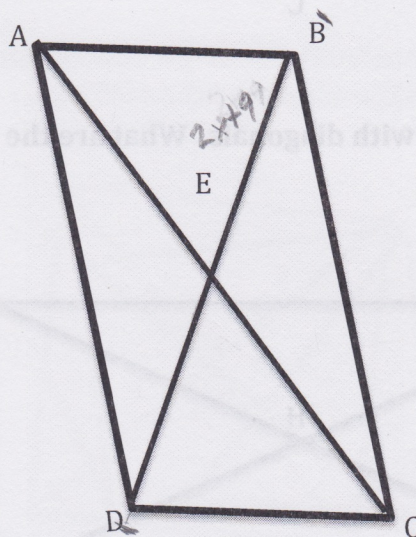
$$\times m\angle BEF = \underline{21}$$

3. The figure below is a rhombus with diagonals. If $m\angle ADE = (8x-20)^\circ$ and the $m\angle CDE = (5x+1)^\circ$, what is the value of x ?



$x = 7.5$

4. The figure below is a parallelogram with diagonals. If $BD = 8x-6$ and $BE = 2x+9$, what is the length of BD and BE?

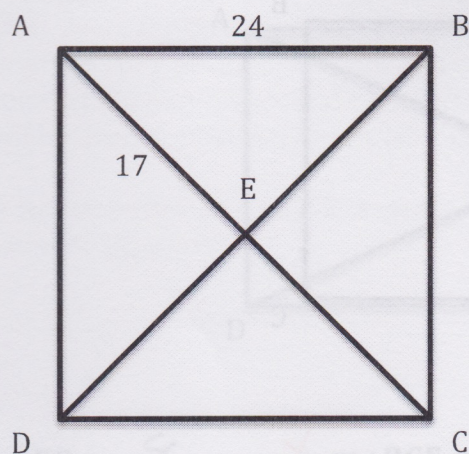


$8x-6$

$BD = -1.3$

$BE = 4.5$

5. The following figure is a square with diagonals. Find the following lengths and angle measurements.



\times $m\angle ADC = \underline{12}$

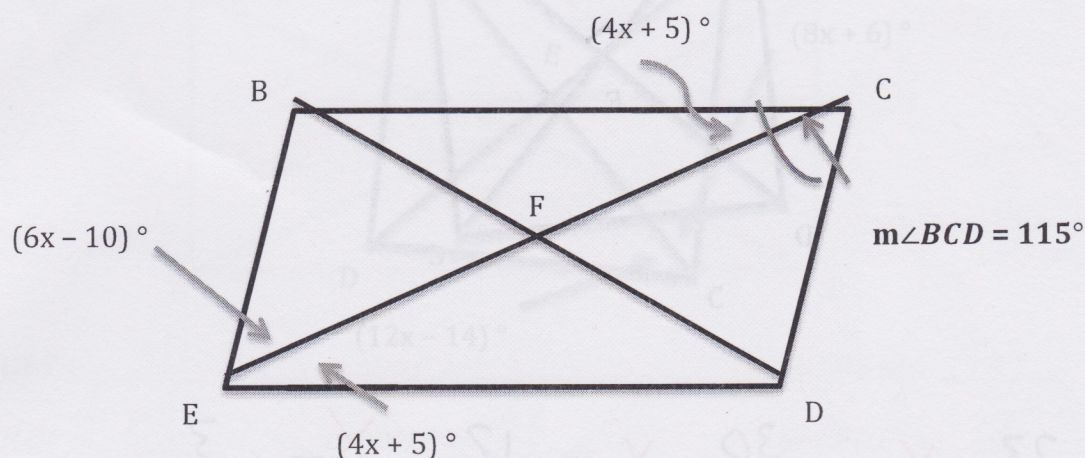
\times $m\angle BCE = \underline{21}$

\times $CE = \underline{13}$

\times $BC = \underline{8}$

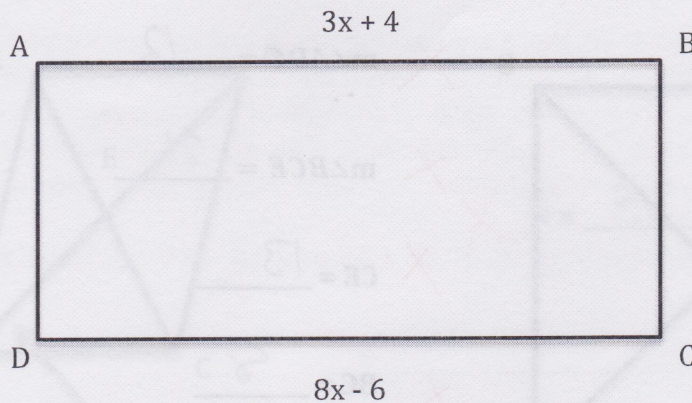
6. The following figure is a parallelogram with diagonals. Given the following information, what is the $m\angle BEF$?

- $m\angle BCF = (4x + 5)^\circ$
- $m\angle BEF = (6x - 10)^\circ$
- $m\angle DEF = (4x + 5)^\circ$
- $m\angle BCD = 115^\circ$



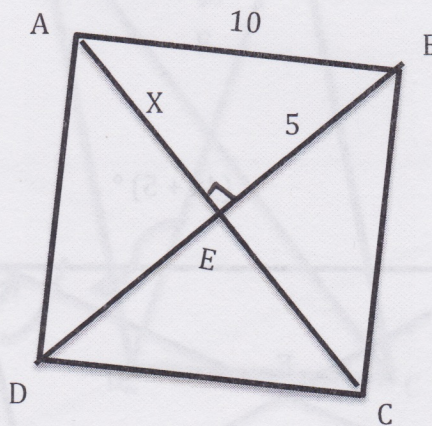
\times $m\angle BEF = \underline{21}$

7. The figure below is a rectangle. Given that length $AB = 3x + 4$ and length $DC = 8x - 6$, what is the numerical length of AB ?



\times $AB = \underline{32}$

8. The figure below is a rhombus with diagonals. Given that $AE = X$, $AB = 10$, and $BE = 5$, what is the value of the following lengths?



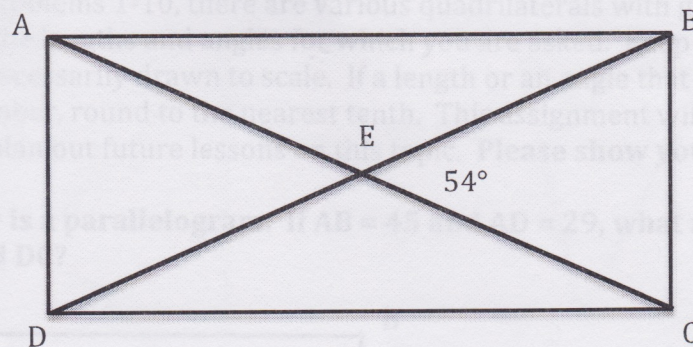
\times $BC = \underline{23}$

\times $DE = \underline{30}$

\times $AE = \underline{12}$

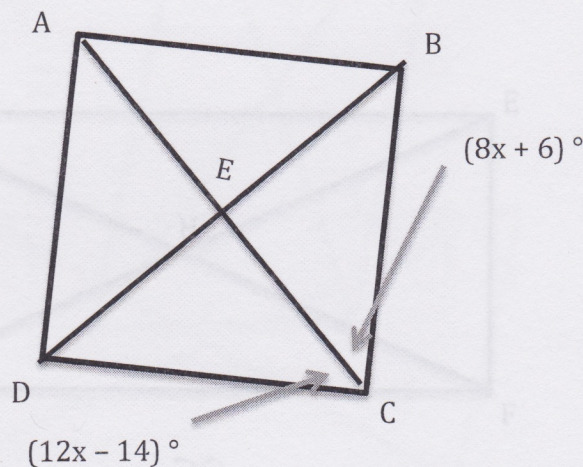
\times $BD = \underline{3}$

9. The figure below is a rectangle with diagonals. If $m\angle BEC = 54^\circ$, find the following angle measures:



\times $m\angle AEB = 8$ \times $m\angle BCE = 10$ \times $m\angle ADB = 12$
 \times $m\angle ABD = 9$ \times $m\angle DAE = 30$ \times $m\angle EBC = 13$

10. The figure below is a rhombus with diagonals. Given that $m\angle BCE = (8x + 6)^\circ$ and $m\angle DCE = (12x - 14)^\circ$, what is the $m\angle ADC$?



\times $m\angle ADC = 18$