

MINISTRY OF EDUCATION

Badaa Al Mutawa School

Student Name: _____

Grade: _____

Date: _____

Subject: Mathematics

Subject Teacher: Abdulkader Amro

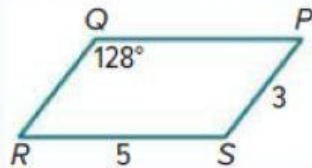
M2L2 Parallelogram — MCQ MATHEMATICS ASSESSMENT

Choose the one best answer for each question.

Parallelogram Properties

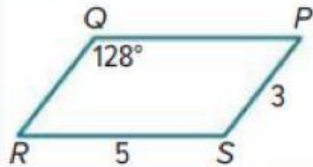
1. Use parallelogram PQRS to find each measure. What is $m\angle R$ if $m\angle Q = 128^\circ$?

- A. 52°
- B. 180°
- C. 128°
- D. 62°



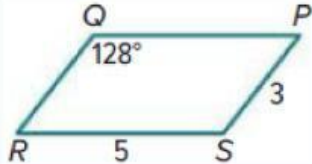
2. Use parallelogram PQRS to find each measure. What is QR if PS = 3?

- A. 5
- B. 3
- C. 6
- D. 128



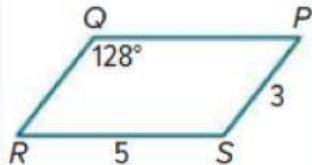
3. Use parallelogram PQRS to find each measure. What is QP if RS = 5?

- A. 10
- B. 128
- C. 5
- D. 3



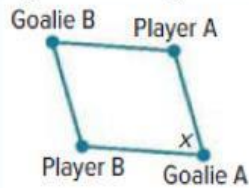
4. Use parallelogram PQRS to find each measure. What is $m\angle S$ if $m\angle Q = 128^\circ$?

- A. 52°
- B. 180°
- C. 62°
- D. 128°



Applications

5. Four soccer players are practicing a drill. Goalie A is facing Player B to receive the ball. Goalie A then turns x° to face Player A to pass her the ball. If Goalie B is facing Player A to receive the ball, then through what angle measure should Goalie B turn to pass the ball to Player B?

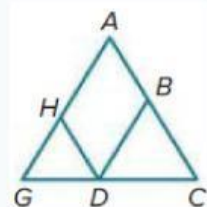


- A. $180^\circ - x^\circ$
- B. x°
- C. $2x^\circ$
- D. $90^\circ - x^\circ$

Proofs

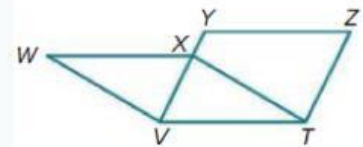
6. Given: parallelogram BDHA and $CA \cong CG$. Prove: $\angle BDH \cong \angle G$. Which sequence correctly completes the proof?

- A. $BD \parallel AH \rightarrow \angle BDH \cong \angle G$ directly; no additional information is needed.
- B. $BD \cong AH$ and $DH \cong AB \rightarrow \angle BDH \cong \angle CAG$; $CA \parallel CG \rightarrow \angle CAG \cong \angle G$.
- C. $BD \parallel AH$ and $DH \parallel AB \rightarrow \angle BDH \cong \angle CAG$; $CA \cong CG \rightarrow \angle CAG \cong \angle G$; therefore $\angle BDH \cong \angle G$.
- D. $CA \cong CG \rightarrow \angle BDH \cong \angle G$ directly, because corresponding sides are congruent.



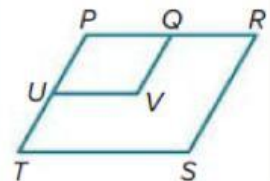
7. Given: WXTV and YZTV are parallelograms. Prove: $WX \cong YZ$. Which proof is correct?

- A. $WX \cong YZ$ because diagonals of a parallelogram are always congruent.
- B. $WX \cong YZ$ because they are opposite sides of the same parallelogram.
- C. $WX \cong YZ$ because all angles in parallelograms are congruent.
- D. $WX \cong VT$ and $YZ \cong VT$ because opposite sides of parallelograms are congruent; therefore $WX \cong YZ$ by the Transitive Property.



8. Given: parallelograms PRST and PQVU. Prove: $\angle V \cong \angle S$. Which paragraph-proof reasoning is correct?

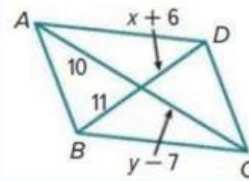
- A. $\angle V \cong \angle Q$ and $\angle Q \cong \angle S$, so $\angle V \cong \angle S$ by the Transitive Property.
- B. $\angle V \cong \angle S$ because all angles in a parallelogram are congruent.
- C. $\angle V \cong \angle Q$ and $\angle Q \cong \angle S$ because diagonals of parallelograms are perpendicular.
- D. $\angle V \cong \angle P$ because they are adjacent angles, and $\angle P \cong \angle S$ because they are corresponding angles.



Parallelogram Variables

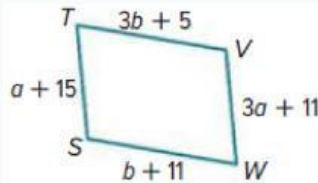
9. Find the values of x and y in the parallelogram shown. .

- A. $x = 11, y = 10$
- B. $x = 17, y = 5$
- C. $x = 5, y = 17$
- D. $x = 5, y = 3$



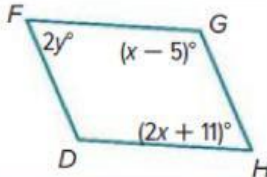
10. Find the values of a and b in the parallelogram shown.

- A. $a = 3, b = 2$
- B. $a = 8, b = 13$
- C. $a = 13, b = 8$
- D. $a = 2, b = 3$



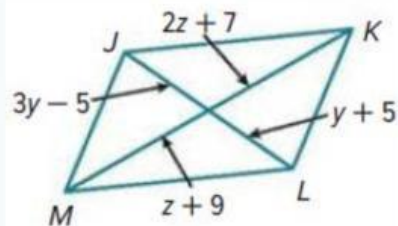
11. Find the values of x and y in the parallelogram shown.

- A. $x = 58, y = 63.5$
- B. $x = 56, y = 64$
- C. $x = 63.5, y = 58$
- D. $x = 58, y = 58$



12. Find the values of y and z in the parallelogram shown..

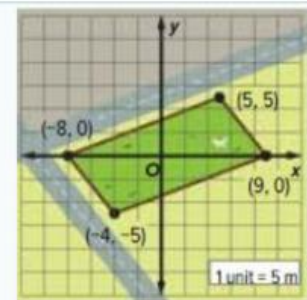
- A. $y = 6, z = 1$
- B. $y = 5, z = 2$
- C. $y = 4, z = 3$
- D. $y = 2, z = 5$



Coordinate Geometry

13. A new dog park is shaped like a parallelogram. From the coordinate grid, the vertices are $(-8, 0)$, $(5, 5)$, $(9, 0)$, and $(-4, -5)$, and 1 unit = 5 m. What are the area and perimeter of the dog park, rounded to the nearest hundredth if necessary?

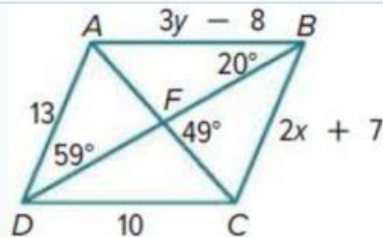
- A. $1,700 \text{ m}^2$ and 309.28 m
- B. $2,125 \text{ m}^2$ and 292.00 m
- C. $1,062.50 \text{ m}^2$ and 309.28 m
- D. $2,125 \text{ m}^2$ and 309.28 m



Parallelogram Measures

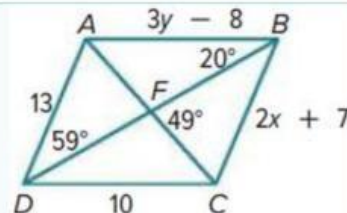
14. Use parallelogram ABCD to find x . If $AB = 3y - 8$ and $DC = 10$, and $BC = 2x + 7$ while $AD = 13$, what is x ?

- A. 6
- B. 13
- C. 3
- D. 2



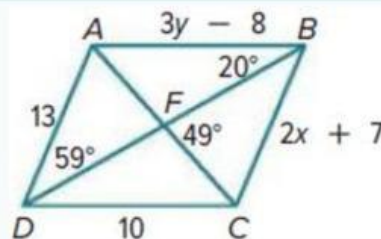
15. Use parallelogram ABCD to find y . If $AB = 3y - 8$ and $DC = 10$, what is y ?

- A. 6
- B. 5
- C. 10
- D. 4



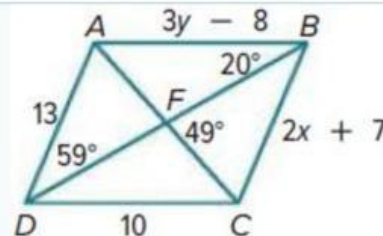
16. Use parallelogram ABCD to find $m\angle AFB$. The diagonals intersect at F and $m\angle BFC = 49^\circ$.

- A. 101°
- B. 79°
- C. 49°
- D. 131°



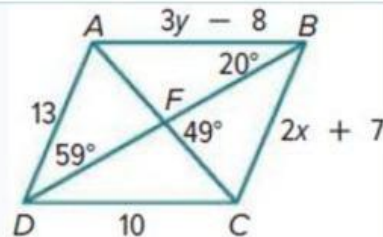
17. Use parallelogram ABCD to find $m\angle DAC$. The diagram gives $m\angle ABD = 20^\circ$, $m\angle ADB = 59^\circ$, and $m\angle BFC = 49^\circ$.

- A. 49°
- B. 72°
- C. 29°
- D. 101°



18. Use parallelogram ABCD to find $m\angle ACD$. The diagram gives $m\angle ABD = 20^\circ$, $m\angle ADB = 59^\circ$, and $m\angle BFC = 49^\circ$.

- A. 59°
- B. 20°
- C. 29°
- D. 72°



19. Use parallelogram ABCD to find $m\angle DAB$. The diagram gives $m\angle ABD = 20^\circ$ and $m\angle ADB = 59^\circ$.

- A. 101°
- B. 121°
- C. 79°
- D. 160°

