

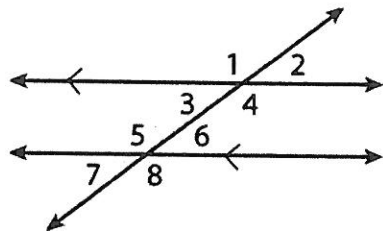
MODULE

11

Angle Relationships in Parallel Lines and Triangles

Module Quiz: B

Use the figure for 1 and 2.



1. Which pair of angles are alternate exterior angles?

A $\angle 7$ and $\angle 4$ B $\angle 2$ and $\angle 6$ ☒ C $\angle 8$ and $\angle 1$ D $\angle 2$ and $\angle 8$

2. Which of these angles is **not** congruent to $\angle 5$?

A $\angle 8$ obtuseC $\angle 1$ obtuse☒ B $\angle 6$ acuteD $\angle 4$ obtuse

3. The measures of three angles of a triangle are given by $(8x - 5)^\circ$, $(2x)^\circ$, and $(3x - 10)^\circ$. What is the measure of the largest angle?

A 15° C 35° ☒ B 115° D 95°

4. Which of the following linear equations is shown by the table below?

x	0	2	4	7	9	12
y	1	5	9	15	19	25

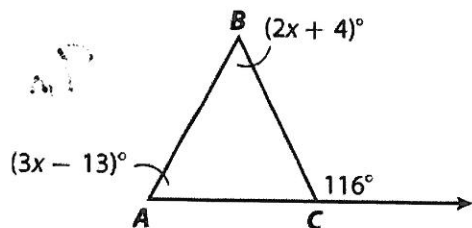
☒ A $y = 2x + 1$ B $y = x + 2$ C $y = 3x - 1$ D $y = 2x - 1$

5. Which of the following equations shows a proportional function?

A $y = x + 3$ B $y = 2x - 1$ C $y = x - 2$ ☒ D $y = 4x$

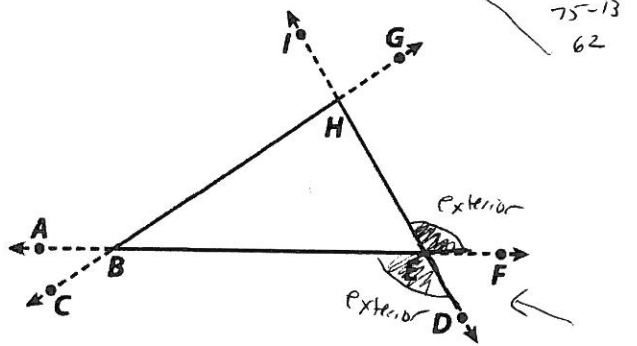
y-intercept = 0

6. What is the measure of $\angle A$ in the triangle below?

A 116° B 25° ☒ C 62° D 54°

$$\begin{aligned} 2x + 4 + 3x - 13 &= 116 \\ 5x - 9 &= 116 \\ 5x &= 125 \\ x &= 25 \end{aligned}$$

7. Which of the following is **not** an exterior angle of triangle BHE?

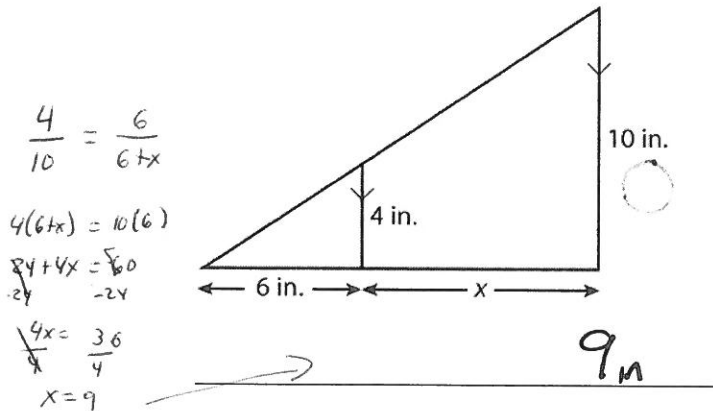
A $\angle GHE$ B $\angle ABH$ C $\angle DEB$ ☒ D $\angle FED$

Just an angle formed from exterior angles

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8. What is the measure of x ?

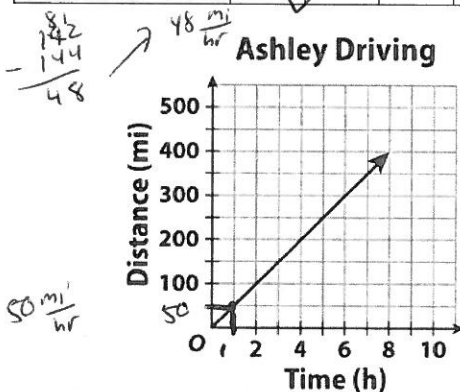


Use the table and graph for 9 and 10.

Brad Driving

Time (h)	3	4	6	7	9
Distance (mi)	144	192	288	336	432

Ashley Driving



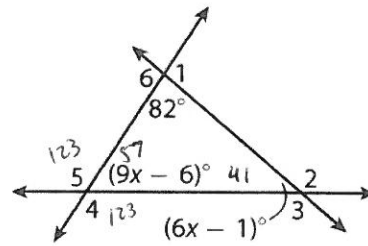
9. The table and graph show the time and distance Brad and Ashley each drove. Which driver drove at a faster rate?

$50 > 48$ **Ashley**

10. How many miles per hour faster did the faster driver drive?

$50 - 48 = 2$ **2 mi/hr**

Use the diagram for 11–14.



11. What is the measure of $\angle 1$?

$180 - 82 = 98$
98°

12. What is the measure of $\angle 2$?

139°

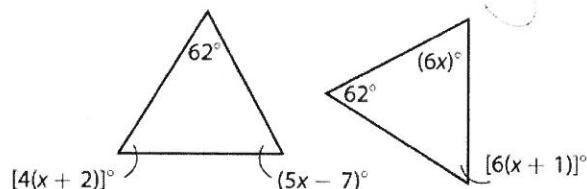
13. What is the measure of $\angle 4$?

123°

14. What is the measure of $\angle 5$?

123°

15. Are the triangles below similar? Explain your reasoning.



NO

60 62 58

62 62 56

$82 + 9x - 6 + 6x - 1 = 180$
 $15x + 75 = 180$
 $15x = 105$
 $x = 7$
 $6(7) - 1 = 41$
 $180 - 41 = 139$
 $82 + 41 + (9x - 6) = 180$
 $123 + (9x - 6) = 180$
 $117 + 9x = 180$
 $9x = 63$
 $x = 7$