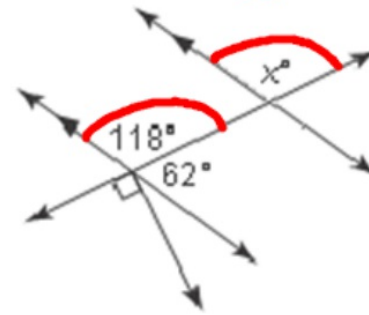


Chapter 5 Practice Test

SCORE _____

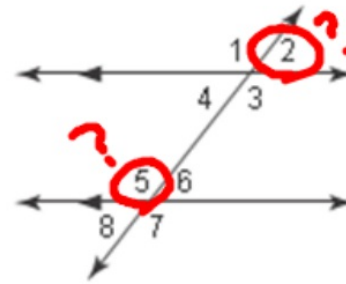
Write the letter for the correct answer in the blank at the right of each question.

1. What is the value of x in the figure at the right?



1. 118°

2. Which pair of angles is *not* congruent?



F. $\angle 1$ and $\angle 7$

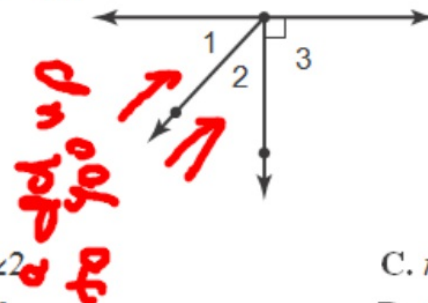
H. $\angle 4$ and $\angle 6$

G. $\angle 3$ and $\angle 5$

I. $\angle 2$ and $\angle 5$

2. I

3. In the figure below, $m\angle 1 = x$ and $m\angle 2 = x - 4$. Which statement could be used to prove that $x = 47$?



A. $m\angle 1 = m\angle 2$

C. $m\angle 1 + m\angle 2 = 90^\circ$

B. $m\angle 2 = 47^\circ$

D. $m\angle 1 + m\angle 2 = 180^\circ$

3. C

4. Rini used a stick to draw a right triangle in the ground. The hypotenuse of her triangle is 24 inches and one of the legs is 12 inches. What is the length of the third side? Round to the nearest tenth if necessary.



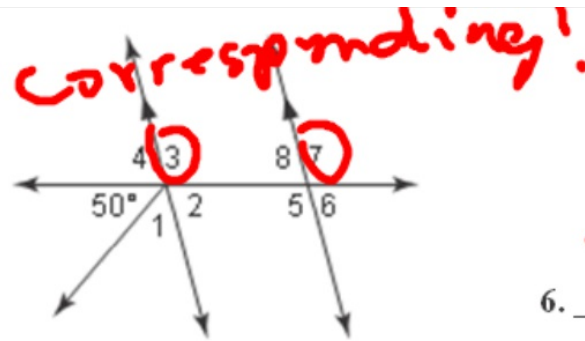
$$\begin{aligned}
 a^2 + b^2 &= c^2 \\
 12^2 + x^2 &= 24^2 \\
 144 + x^2 &= 576 \\
 \underline{144} &\quad \underline{-144} \\
 x^2 &= 432 \\
 x &= \sqrt{432}
 \end{aligned}$$

5. What is the measure of an exterior angle of a regular hexagon?

$$\frac{360}{6} = 60^\circ$$

6. In the figure at the right, find the $m\angle 6$ if

$m\angle 2 = 75^\circ$.



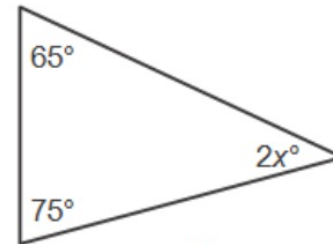
6. 75°

7. What is the value of x in the triangle at the right?

$$\begin{array}{r} 65 + 75 + 2x = 180 \\ 140 - 140 \\ \hline \end{array}$$

$$2x = 40$$

$$n = 21$$



$x = 20^\circ$

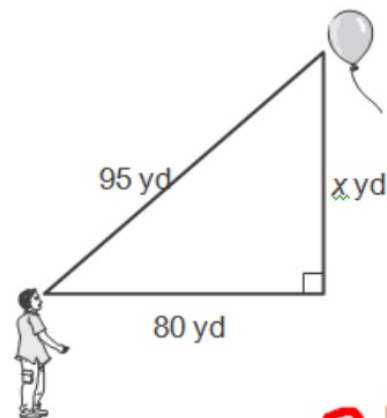
7. _____

8. Find the sum of the measures of the interior angles of a 21-gon.

$$(n-2)180 = (21-2)180 = 19 \times 180$$

8. 3420°

9. In the diagram, Jorge let go of the string tied to his balloon. Write and solve an equation to find how far above Jorge's head the balloon is. Round your answer to the nearest tenth if necessary.



9. _____

$$\begin{aligned}80^2 + x^2 &= 95^2 \\6400 + x^2 &= 9025 \\x^2 &= 2625\end{aligned}$$

$$x = \sqrt{2625}$$

10. The Pentagon building in Washington, D.C., is named because it is in the shape of a regular pentagon. What is the measure of each interior angle?

$$(5-2)(180) = \frac{540}{5}$$

10. 108°

10. The Pentagon building in Washington, D.C., is named because it is in the shape of a regular pentagon. What is the measure of each interior angle?

10. _____

11. Maude's living room is in the shape of a rectangle. Its dimensions are 21 feet by 14 feet. Find the length of the diagonal of the living room. Round your answer to the nearest tenth if necessary.

$$637 = c^2$$

$$c = \sqrt{637}$$



$$21^2 + 14^2 = c^2$$

$$441 + 196 = c^2$$

12. Find the distance between points $M(-4, 6)$ and $N(10, -5)$. Round to the nearest tenth if necessary.

12. 2

* $196 + 121 = 317$

114 $c = \sqrt{317}$

* $x_1 - x_2 = -4 - 10 = (-14)$

$y_1 - y_2 = 6 - (-5) = (11)$