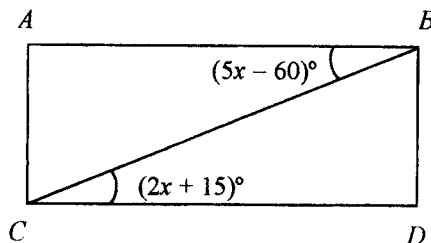


**Chapter 9 Test Form B**  
 Tussy-Gustafson Prealgebra 3<sup>rd</sup> edition

Name: \_\_\_\_\_  
 Date: \_\_\_\_\_

Find the answer for each problem.

1.  $\overline{AB} \parallel \overline{CD}$ . Find  $x$ .



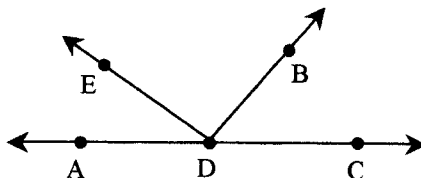
1. \_\_\_\_\_

2. This symbol  $\parallel$  is read as ?

2. \_\_\_\_\_

3. Find  $m(\angle BDE)$  if  $m(\angle ADE) = 41^\circ$  and  $m(\angle BDC) = 52^\circ$ .

3. \_\_\_\_\_



4. Identify the angles as obtuse, acute, straight or right angles.

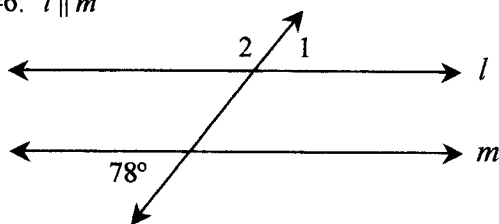
$180^\circ$  \_\_\_\_\_

$90^\circ$  \_\_\_\_\_

$43^\circ$  \_\_\_\_\_

$137^\circ$  \_\_\_\_\_

Use the figure for #5 and #6.  $l \parallel m$



5. Find the  $m(\angle 1)$ .

5. \_\_\_\_\_

6. Find the  $m(\angle 2)$ .

6. \_\_\_\_\_

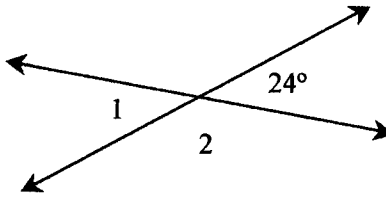
7. Find the complement of an angle that measures  $43^\circ$ .

7. \_\_\_\_\_

8. Give the number vertices of a hexagon.

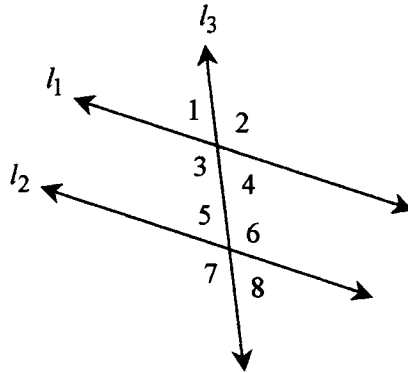
8. \_\_\_\_\_

9. Find  $m(\angle 1)$  and  $m(\angle 2)$ .



9. \_\_\_\_\_

10.  $l_1 \parallel l_2$  and  $m(\angle 3) = 124^\circ$ . Find  $m(\angle 8)$ .



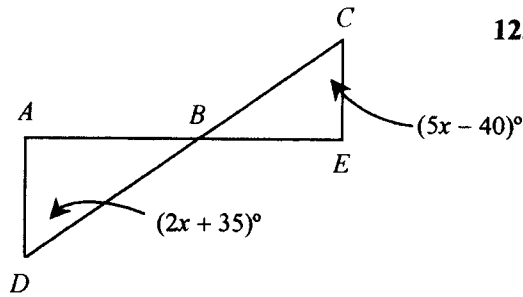
10. \_\_\_\_\_

11. Classify the type of quadrilateral as a rectangle, a square, a rhombus, or a trapezoid.



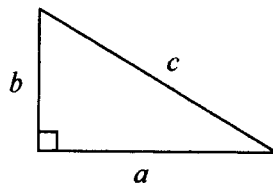
11. \_\_\_\_\_

12.  $\overline{AD} \parallel \overline{CE}$ . Find  $x$ .



12. \_\_\_\_\_

13. Find the length of the unknown side.  
If  $a = 6$  and  $b = 8$ , find  $c$ .



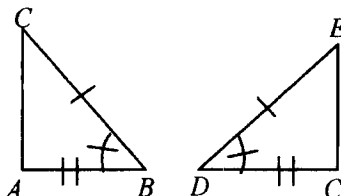
13. \_\_\_\_\_

14. Identify the polygon as a triangle, a quadrilateral, a pentagon, a hexagon, or an octagon.



14. \_\_\_\_\_

15. Determine whether the triangles are congruent. If they are congruent, tell why and identify the congruent angles.



15. \_\_\_\_\_

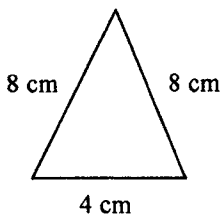
16. Find the volume of a cone with a height of 10 centimeters and a circular base with a radius of 3 centimeters. Round to the nearest tenth. Use 3.14 for  $\pi$ .

16. \_\_\_\_\_

17. Find the perimeter of a rectangle with a width of 10 feet and length of 6 feet.

17. \_\_\_\_\_

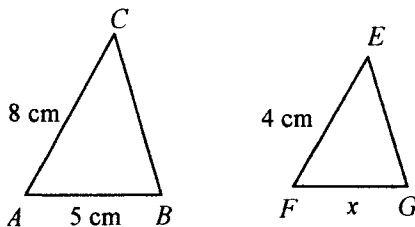
18. Classify the triangle as an equilateral, isosceles, scalene, or a right triangle.



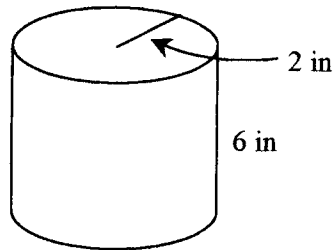
18. \_\_\_\_\_

19. Find  $x$  given  $m(\angle A) = m(\angle F)$  and  $m(\angle B) = m(\angle G)$ .

19. \_\_\_\_\_



20. Find the volume of a cylinder with the radius of 2 inches.  
Round to the nearest tenth. Use 3.14 for  $\pi$

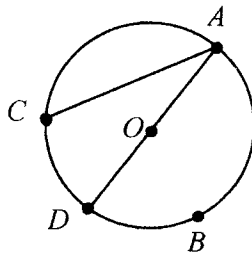


20. \_\_\_\_\_

21. Find the area of a circle with a radius of 5 feet.  
Round to the nearest tenth. Use 3.14 for  $\pi$

21. \_\_\_\_\_

22. Name a chord and a major arc.



22. \_\_\_\_\_

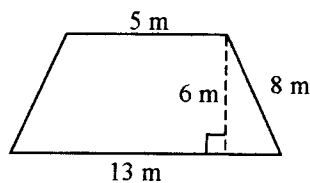
23. Find the circumference of a circle with a diameter of 10 meters.  
Round to the nearest tenth. Use 3.14 for  $\pi$

23. \_\_\_\_\_

24. Find the volume of a sphere with the radius of 2 cm.  
Round to the nearest tenth. Use 3.14 for  $\pi$

24. \_\_\_\_\_

25. Find the area of the polygon.



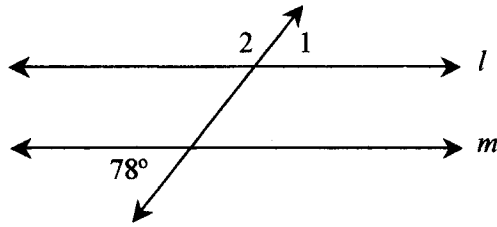
25. \_\_\_\_\_

**Chapter 9 Test Form C**  
Tussy-Gustafson Prealgebra 3<sup>rd</sup> edition

Name: \_\_\_\_\_  
Date: \_\_\_\_\_

*Choose the correct answer for each problem.*

Use the figure for #1 and #2.  $l \parallel m$



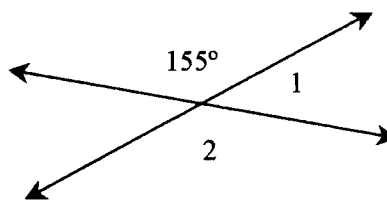
1. Find  $m(\angle 2)$ .

- a.  $78^\circ$                       b.  $12^\circ$                       c.  $102^\circ$                       d.  $168^\circ$

2. Find  $m(\angle 1)$ .

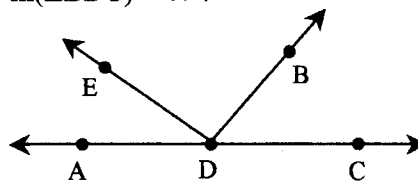
- a.  $78^\circ$                       b.  $12^\circ$                       c.  $102^\circ$                       d.  $168^\circ$

3. Find  $m(\angle 1)$



- a.  $65^\circ$                       b.  $25^\circ$                       c.  $155^\circ$                       d.  $15^\circ$

4. Find  $m(\angle EDB)$  if  $m(\angle ADE) = 34^\circ$  and  $m(\angle BDC) = 47^\circ$ .



- a.  $133^\circ$                       b.  $34^\circ$                       c.  $81^\circ$                       d.  $99^\circ$

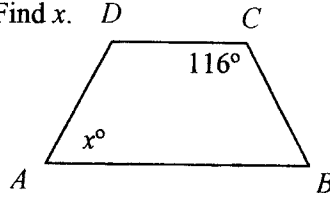
5. Find the sum of the measures of the angles in an octagon.

- a.  $1,440^\circ$                       b.  $1,080^\circ$                       c.  $720^\circ$                       d.  $360^\circ$

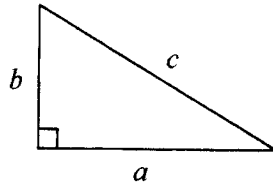
6. Find the supplement of an angle that measures  $72^\circ$ .

- a.  $108^\circ$                       b.  $18^\circ$                       c.  $72^\circ$                       d.  $288^\circ$

7.  $ABCD$  is an isosceles trapezoid. Find  $x$ .

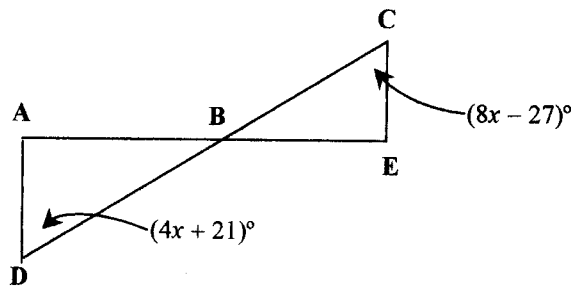


- a.  $26^\circ$                       b.  $116^\circ$                       c.  $64^\circ$                       d.  $244^\circ$
8. Find the length of the unknown side. If  $a = 3$  and  $c = 4$ , find  $b$ .



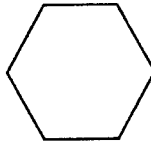
- a. 7                      b. 5                      c.  $\sqrt{5}$                       d.  $\sqrt{7}$
9. Find the area of a triangle with a base of 12 inches and a height of 8 inches.
- a.  $20 \text{ in}^2$                       b.  $10 \text{ in}^2$                       c.  $96 \text{ in}^2$                       d.  $48 \text{ in}^2$
10. Find the volume of a cone with a height of 8 meters and a circular base with a radius of 5 meters. Round to the nearest tenth. Use 3.14 for  $\pi$ .
- a.  $628 \text{ m}^3$                       b.  $26.2 \text{ m}^3$                       c.  $209.3 \text{ m}^3$                       d.  $41.9 \text{ m}^3$
11. The formula for finding the surface area of a sphere is ...
- a.  $2\pi r^2$                       b.  $4\pi r^2$                       c.  $\frac{4}{3}\pi r^3$                       d.  $\frac{1}{3}\pi r^2 h$

12.  $\overline{AD} \parallel \overline{CE}$ . Find  $x$ .



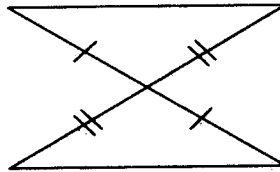
- a. 12                      b. 48                      c. 78                      d. 15.5

13. Classify the polygon as ...

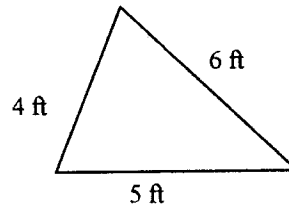


- a. a hexagon.      b. a quadrilateral.      c. a pentagon.      d. an octagon.

14. Determine whether the pair the triangles are congruent. If they are congruent, tell why.

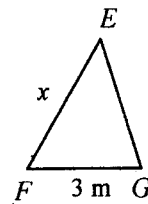
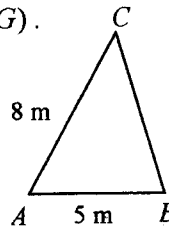


- a. no      b. yes, SSS      c. yes, SAS      d. yes, ASA
15. Classify the triangle as an equilateral, isosceles, scalene, or a right triangle.



- a. equilateral      b. scalene      c. isosceles      d. right

16. Find
- $x$
- given
- $m(\angle A) = m(\angle F)$
- and
- $m(\angle B) = m(\angle G)$
- .



- a. 6 m      b. 1.875 m      c. 13.3 m      d. 4.8 m

17. Find the perimeter of a rectangle with a width of 8 inches and length of 4 feet inches.

- a. 6 in      b. 12 in      c. 24 in      d. 32 in

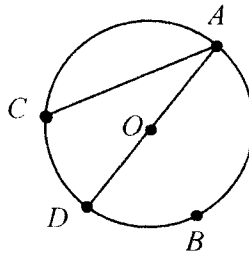
18. Find the volume of a sphere with the radius of 4 cm. Round to the nearest tenth. Use 3.14 for
- $\pi$
- .

- a.  $267.9 \text{ cm}^3$       b.  $66.9 \text{ cm}^3$       c.  $50.2 \text{ cm}^3$       d.  $16.7 \text{ cm}^3$

19. Find the circumference of a circle with a radius of 4 feet.  
Round to the nearest tenth. Use 3.14 for  $\pi$ .

- a. 12.6 ft                      b. 6.3 ft                      c. 50.2 ft                      d. 25.1 ft

Use this figure for #20 and #21.



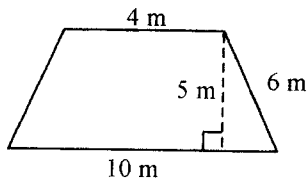
20. Name a chord.

- a.  $\widehat{AC}$                       b.  $\overline{AC}$                       c.  $AC$                       d.  $\overline{OC}$

21. Name a minor arc.

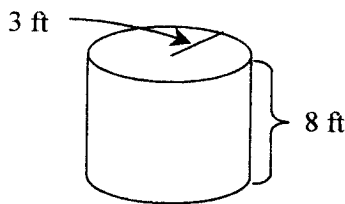
- a.  $\widehat{AC}$                       b.  $\overline{AC}$                       c.  $\widehat{ACDB}$                       d.  $\widehat{ABC}$

22. Find the area of the polygon.



- a.  $25 \text{ m}^2$                       b.  $42 \text{ m}^2$                       c.  $35 \text{ m}^2$                       d.  $74 \text{ m}^2$

23. Find the volume of a cylinder with the radius of 3 ft. Round to the nearest tenth. Use 3.14 for  $\pi$ .



- a.  $226.1 \text{ ft}^2$                       b.  $75.4 \text{ ft}^2$                       c.  $113.0 \text{ ft}^2$                       d.  $236.6 \text{ ft}^2$

24. Give the number vertices of a pentagon.

- a. 4                      b. 8                      c. 6                      d. 5

25. The lengths of the three sides of a triangle are 5, 12, and 13. Is the triangle a right triangle?

- a. yes                      b. no                      c. not enough information given