

Student: \_\_\_\_\_

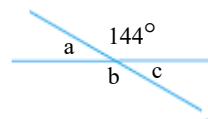
Instructor: Megan Rourke

Assignment: 8.1-8.2 Homework

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

Course: MATH 1500 - Online

1. In the figure shown to the right, one angle measurement is given. Find  $\angle a$ ,  $\angle b$ , and  $\angle c$ .

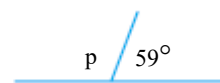


$$\angle a = \boxed{\phantom{000}}^\circ$$

$$\angle b = \boxed{\phantom{000}}^\circ$$

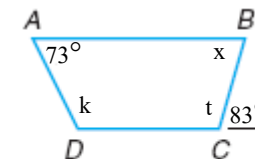
$$\angle c = \boxed{\phantom{000}}^\circ$$

2. In the figure shown to the right, one angle measurement is given. Find  $\angle p$ .



$$\angle p = \boxed{\phantom{000}}^\circ$$

3. In the figure shown to the right, two angle measurements are given. Determine the others.



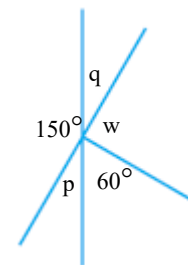
Where  $AB$  is parallel to  $CD$

$$\angle k = \boxed{\phantom{000}}^\circ$$

$$\angle t = \boxed{\phantom{000}}^\circ$$

$$\angle x = \boxed{\phantom{000}}^\circ$$

4. In the figure shown to the right, two angle measurements are given. Determine the others.

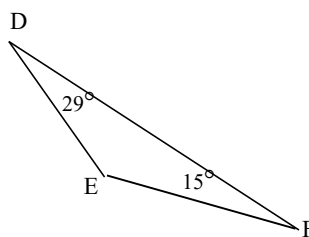


$$\angle p = \boxed{\phantom{000}}^\circ$$

$$\angle q = \boxed{\phantom{000}}^\circ$$

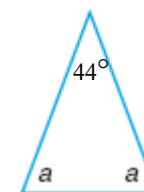
$$\angle w = \boxed{\phantom{000}}^\circ$$

5. For the triangle shown to the right, two angles are given. Find the third angle without using a protractor.



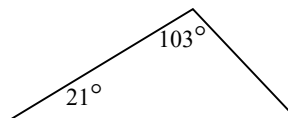
The measure of the third angle,  $\angle E$ , is  $\boxed{\phantom{000}}^\circ$ .

6. For the triangle shown to the right, one angle is given. Find the other two angles (the angles labeled  $a$  are equal).



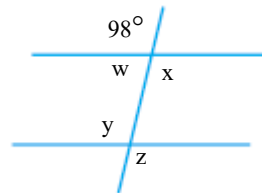
The other two angles are  $\boxed{\phantom{000}}^\circ$ .

7. For the triangle shown to the right, two angles are given. Find the third angle without using a protractor.



The measure of the third angle is  $\boxed{\phantom{000}}^\circ$ .

8. In the figure shown to the right, two parallel lines are cut by a third line. Find  $\angle w$ ,  $\angle x$ ,  $\angle y$ , and  $\angle z$ .



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 $\angle w = \boxed{\phantom{000}}^\circ$

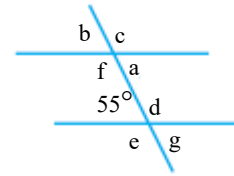
$\angle x = \boxed{\phantom{000}}^\circ$

$\angle y = \boxed{\phantom{000}}^\circ$

$\angle z = \boxed{\phantom{000}}^\circ$ 

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9. The two parallel lines are cut by a third line in the figure to the right. Find the angles marked.



What is  $\angle a$ ?

$$\angle a = \boxed{\phantom{000}}^\circ$$

What is  $\angle b$ ?

$$\angle b = \boxed{\phantom{000}}^\circ$$

What is  $\angle c$ ?

$$\angle c = \boxed{\phantom{000}}^\circ$$

What is  $\angle d$ ?

$$\angle d = \boxed{\phantom{000}}^\circ$$

What is  $\angle e$ ?

$$\angle e = \boxed{\phantom{000}}^\circ$$

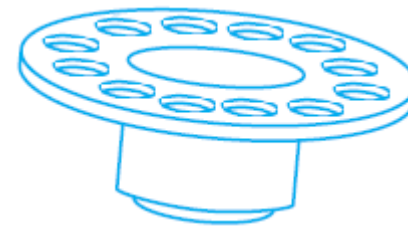
What is  $\angle f$ ?

$$\angle f = \boxed{\phantom{000}}^\circ$$

What is  $\angle g$ ?

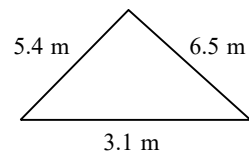
$$\angle g = \boxed{\phantom{000}}^\circ$$

10. In the pipe flange shown to the right, the twelve bolt holes are equally spaced. What is the spacing of the holes, in degrees?



$$\boxed{\phantom{000}}^\circ \text{ (Simplify your answer.)}$$

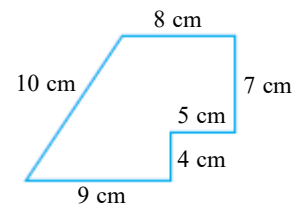
11. Find the perimeter of the polygon shown to the right.



The perimeter of the polygon is  (1)   
(Simplify your answer.)

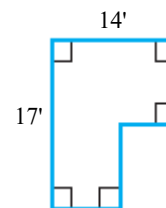
- (1)  m.  
 sq. m.

12. Find the perimeter of the polygon.



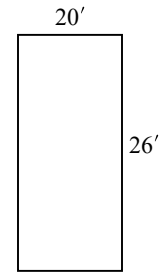
The perimeter of the polygon is  cm.  
(Simplify your answer.)

13. Find the perimeter of the polygon.



The perimeter of the polygon is  ft.  
(Simplify your answer.)

14. Find the perimeter and area of the figure shown to the right. (Assume right angles and parallel sides except where obviously otherwise.)

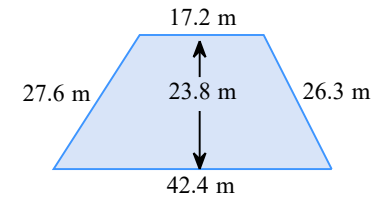


The perimeter of the given figure is  (1)

The area of the figure is  (2)

- (1)  ft.      (2)  ft.  
 ft<sup>2</sup>.       ft<sup>2</sup>.

15. Find the perimeter and area of the figure. (Assume right angles and parallel sides except where obviously otherwise.)



The perimeter of the figure is  (1)   
 (Simplify your answer. Round to the nearest tenth as needed.)

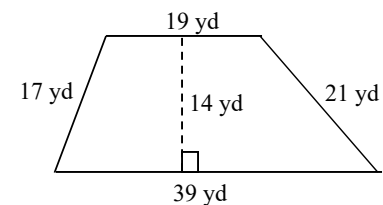
The area of the figure is  (2)   
 (Simplify your answer. Round to the nearest tenth as needed.)

- (1)  m<sup>2</sup>.      (2)  m.  
 m.       m<sup>2</sup>.

16. A playground 98 ft long and 58 ft wide is to be resurfaced at a cost of \$4.25 per sq ft. What will the resurfacing cost?

The resurfacing will cost \$ .  
 (Simplify your answer. Type an integer or a decimal.)

17. Fertilizer must be applied to the planted area shown in the figure. If each bag covers 300 sq ft, how many bags are needed?



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The number of bags needed are .  
(Round up to the nearest whole number.)

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18. A contractor needed a small workshop. He found a preengineered steel building advertised for \$12,760. If the building is a 24-ft by 24-ft square, what is the cost of the building per square foot?

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The cost of the building per square foot is \$ . (Round to the nearest cent as needed.)

1. 36

144

36

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2. 121

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3. 107

97

83

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4. 30

30

90

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5. 136

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6. 68

---

7. 56

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8. 82

98

98

98

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9. 55

55

125

125

125

125

55

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10. 30

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11. 15

(1) m.

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12. 43

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13. 62

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14. 92

(1) ft.

520

(2) ft<sup>2</sup>.

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15. 113.5

(1) m.

709.2

(2) m<sup>2</sup>.

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16. 24,157

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17. 13

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18. 22.15

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