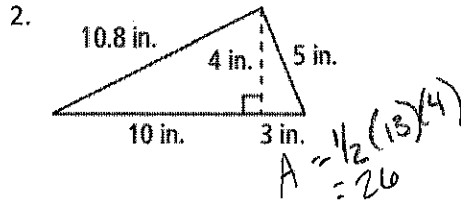
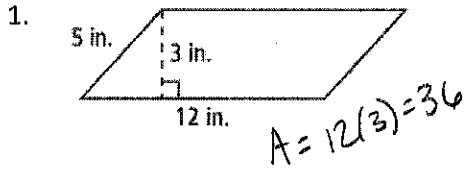


Chapter 8 Review

Name Key

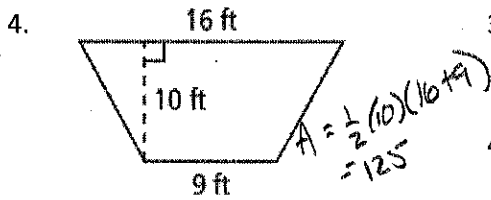
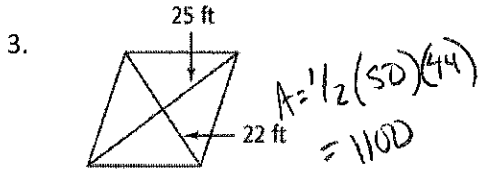
Hour _____

What is the area of each figure below? Round to the nearest tenth.



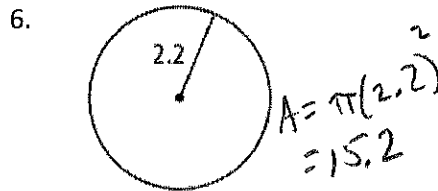
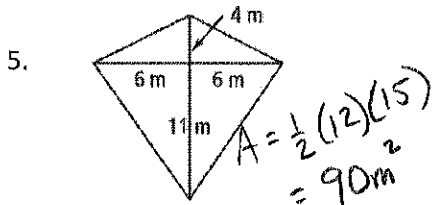
1. 36 in²

2. 20 in²



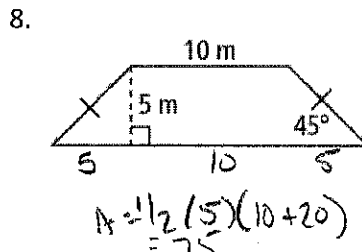
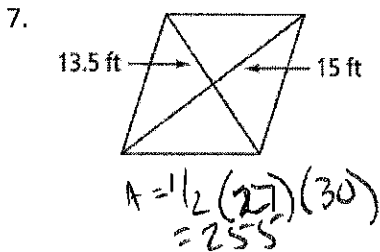
3. 1100 ft²

4. 125 ft²



5. 90 m²

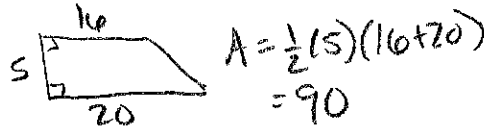
6. 15.2 units²



7. 405 ft²

8. 75 m²

9. A trapezoid has two right angles, 16 in. and 20 in. bases, and 5 in. height. Find the area of the trapezoid.



9. 90 in²

10. Mrs. Henderson wants to put wallpaper border around her living room. The room is 18 ft. by 22 ft. How many feet of border are needed?

10. 80 ft

11. A triangle has area 16 m² and the height of this triangle is 8 m. What is the base of the triangle?

$$16 = \frac{1}{2}(8)(b)$$

$$16 = 4b \quad b = 4$$

11. 4 m

12. What is the circumference of a circle with a radius 5.4 cm, to the nearest tenth?

$$C = 2\pi(5.4) = 33.9$$

12. 33.9 cm

13. What is the perimeter of $\triangle PQR$ with vertices $p(-2, 9)$, $Q(7, -3)$, $R(-2, -3)$ in The coordinate plane?

$$PQ = \sqrt{81 + 144} = 15$$

$$QR = \sqrt{81 + 0} = 9 \quad P = 36$$

$$PR = \sqrt{0 + 144} = 12$$

14. The endpoints of a diameter of a circle are $Q(-5, -3)$ and $R(1, 5)$. Find the area of the circle in terms of π .

$$A = \pi(5)^2$$

$$QR = \sqrt{36 + 64}$$

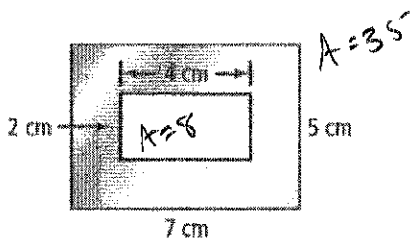
$$d = 10$$

13. 36 units

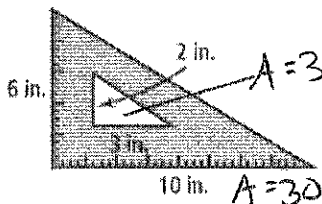
14. 25π units²

Find the area of each shaded region to the nearest tenth.

15.



16.



15. 27cm^2

16. 27in^2

A polygon has the given vertices. Determine the most precise name for the polygon, justify your classification. Then find its area.

17. $A(-4, 4)$, $B(-1, -2)$, $C(-4, -5)$, $D(-7, -2)$

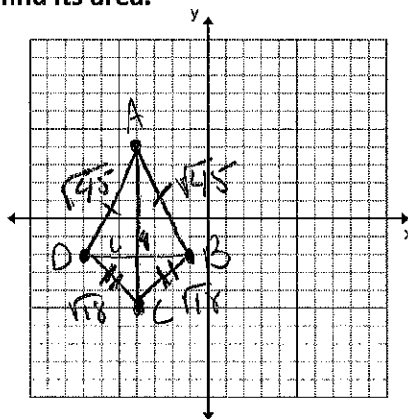
$$AB = \sqrt{9 + 36} = \sqrt{45}$$

$$BC = \sqrt{9 + 9} = \sqrt{18}$$

$$CO = \sqrt{9 + 9} = \sqrt{18}$$

$$AO = \sqrt{9 + 36} = \sqrt{45}$$

$$A = \frac{1}{2}(6)(9)$$



17. Kite
Two pairs of
consecutive
congruent sides.

$A = 27\text{units}^2$

Determine whether $\triangle ABC$ is scalene, isosceles, or equilateral, Justify your classification. Then find its area.

18. $A(-1, -1)$, $B(3, 1)$, $C(1, -3)$

$$AB = \sqrt{16 + 4} = \sqrt{20}$$

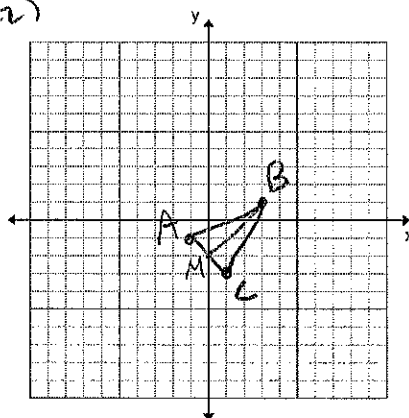
$$BC = \sqrt{4 + 16} = \sqrt{20}$$

$$AC = \sqrt{4 + 4} = \sqrt{8}$$

$$A = \frac{1}{2}(\sqrt{8})(\sqrt{16})$$

$$= 6$$

$M(0, -2)$



$$BM = \sqrt{9 + 9} = \sqrt{18}$$

18. Isosceles
Two congruent
sides

$A = 6\text{units}^2$

altitude

base

diagonal

kite

rhombus

trapezoid

Choose the word from the list that best matches each sentence.

19. A parallelogram with four congruent sides.

19. Rhombus

20. A segment connecting two vertices of a polygon that are not next to each other.

20. Diagonal

21. Any of the sides of a polygon.

21. Base

22. A quadrilateral in which two pairs of consecutive sides are congruent and no opposite sides are congruent.

22. Kite

23. How could you use the formulas to determine if a polygon on a coordinate plane is a rhombus?

Use the distance formula to find the lengths of all four sides to see if they are all congruent.

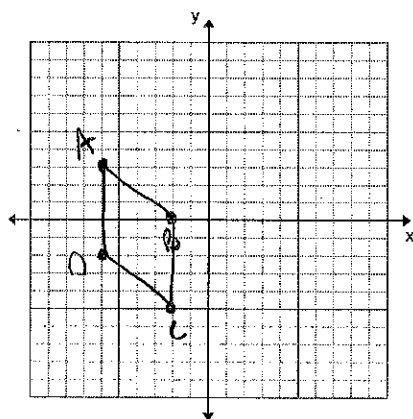
Given a polygon with vertices A(-6, 3), B(-2, 0), C(-2, -5) and D(-6, -2).

24. What is the area of the polygon?

24. 20 units²

25. What is the perimeter of the polygon?

25. 20 units



$$AC = \sqrt{16+64} = \sqrt{80}$$
$$DB = \sqrt{16+4} = \sqrt{20}$$

$$A = \frac{1}{2}(\sqrt{80})(\sqrt{20})$$

$$AB = \sqrt{16+9} = 5$$

$$BC = \sqrt{0+25} = 5$$

$$CD = \sqrt{16+9} = 5$$

$$AD = \sqrt{0+25} = 5$$