Perimeter and Area

Complete.

1. What is the area of a square with perimeter 28 mm?	2. If the height of a parallelogram is 39.2 mm and the base is 19.3 mm, what is the area of the parallelogram?

Complete.

3. Find the area of the parallelogram whose vertices are (2, -7), (6, -6), (6, -7), and (2, -6)	4. Find the area of the parallelogram whose vertices are (-4, -3), (-1, 2), (4, 2), and (1, -3)

Complete.

5. If the height of a rectangle is 7 1/2 cm and the perimeter is 22 2/3 cm, what is the length of the base of the rectangle?	6. If the base of a rectangle is 2 2/3 cm and the perimeter is 24 5/6 cm, what is the height of the rectangle?

Complete.

7. The perimeter of a rectangle is 74 cm. The base is one more than five times the height. What is the area?	8. The area of a rectangle is 754 mm^2. The base is six more than four times the height. What is the length of the base?

Complete.

9. What is the height of a triangle with base 20 cm and area 280 cm^2?	10. What is the length of the base of a triangle with height 5.9 mm and area 40.415 mm^2?

Find the missing measurement of each trapezoid.

11. *height* = 11 m 　　b_1 = _____ 　　b_2 = 14 m 　　*area* = 137.5 m^2	12. *height* = _____ 　　b_1 = 5.2 m 　　b_2 = 15.9 m 　　*area* = 99.17 m^2	13. *height* = 11 cm 　　b_1 = 20 cm 　　b_2 = _____ 　　*area* = 159.5 cm^2

Complete.

14. Find the area of the triangle whose vertices are (9, 10), (16, 4), and (9, 4)	15. Find the area of the triangle whose vertices are (-9, -3), (-16, -3), and (-9, 2)

Complete.

16. Find the area of the parallelogram whose vertices are (3, 5), (3, 2), (0, 2), and (0, 5)	17. Find the area of the square whose vertices are (2, 0), (7, 5), (7, 0), and (2, 5)

Complete.

18. Find the area of the trapezoid whose vertices are (4, 0), (4, -3), (0, -3), and (-6, 0)	19. Find the area of the trapezoid whose vertices are (7, 7), (0, 3), (5, 3), and (0, 7)

Complete.

20. What is the area of a triangle with base 5 cm and height 4 1/2 cm?	21. What is the height of a triangle with base 2 4/5 mm and area 3 1/2 mm^2?

Find the missing measurement of each trapezoid.

22. $height$ = _____ b_1 = 8 m b_2 = 9 5/6 m $area$ = 5 17/18 m^2	23. $height$ = 11 cm b_1 = _____ b_2 = 7 1/2 cm $area$ = 86 5/8 cm^2	24. $height$ = 3 mm b_1 = 4 mm b_2 = _____ $area$ = 15 3/8 mm^2

Find the missing length for each right triangle. Simplify your answer.

25. a = 8 b = 22 c = _____	26. a = _____ b = 4 c = $\sqrt{137}$	27. a = 21 b = _____ c = $15\sqrt{2}$

Find the circumference of each circle. State your answer in terms of π and also round your answer to the nearest tenth.

28. radius = $\frac{1}{2}$ m	29. diameter = 10.5 cm	30. radius = 23.24 cm

Find the area of each circle. State your answer in terms of π and also round your answer to the nearest tenth.

31. radius = 17 cm	32. diameter = 39.84 m	33. diameter = 46 mm

Find the radius of the circle. (*use π = 3.14*)

34. C = 10π cm	35. C = 157.82 mm	36. A = 484π mm^2

Complete.

37. Find the area of the trapezoid whose vertices are (10, 0), (0, -3), (4, -3), and (0, 0)	38. Find the area of the triangle whose vertices are (4, 4), (1, 4), and (1, -1)

Complete.

39. Alyssa has designed a small oval racetrack for her remote control car. Her design is shown in the following figure. She has two curves, each of which is half of a circle. She also has two straight-aways that she wants to connect to the circles. The curves are on a radius of nineteen inches and the straight-aways are fifty-nine inches long. What is the total distance around the track? Round your answer to the nearest whole inch.	40. Mr. Brown needs to buy some fencing for his garden (too many rabbits have been getting in and eating the vegetables). If his garden is fifteen meters by twenty-five meters and is in the shape of a rectangle, what length of fence does he need to build?

Complete.

41. The local football team wants to purchase enough tarp material to cover their field during bad weather. The field, including the end zones is 120 yards long and 50 yards wide. They want to get exactly nineteen percent more than is needed to cover the field so some of the sidelines and area beyond each end zone are covered as well. How many square yards of tarp material should they buy?	42. Lauren has a window cleaning business. She just won a contract to wash the windows on the Zooper building in downtown Mathville. It has one hundred seven 3-ft x 6-ft windows. If she can wash the windows at an average rate of 6.2 square feet per minute, how long will it take her to wash the windows on the entire Zooper building?