



Regents Practice Test 2

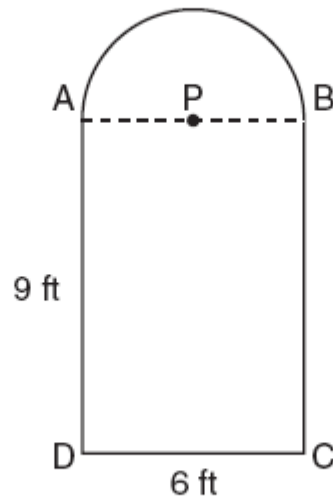
Integrated Algebra

Part II: *Show work on separate paper.*

31 Express $5\sqrt{72}$ in simplest radical form.

32 Solve for g : $3 + 2g = 5g - 9$

33 Serena's garden is a rectangle joined with a semicircle, as shown in the diagram below. Line segment AB is the diameter of semicircle P . Serena wants to put a fence around her garden.



Calculate the length of fence Serena needs to the *nearest tenth of a foot*.

Part III

- 34 Hannah took a trip to visit her cousin. She drove 120 miles to reach her cousin's house and the same distance back home.
- It took her 1.2 hours to get halfway to her cousin's house. What was her average speed, in miles per hour, for the first 1.2 hours of the trip?
 - Hannah's average speed for the remainder of the trip to her cousin's house was 40 miles per hour. How long, in hours, did it take her to drive the remaining distance?
 - Traveling home along the same route, Hannah drove at an average rate of 55 miles per hour. After 2 hours her car broke down. How many miles was she from home?
- 35 A prom ticket at Smith High School is \$120. Tom is going to save money for the ticket by walking his neighbor's dog for \$15 per week. If Tom already has saved \$22, what is the minimum number of weeks Tom must walk the dog to earn enough to pay for the prom ticket?
- 36 Mr. Laub has three children: two girls (Sue and Karen) and one boy (David). After each meal, one child is chosen at random to wash dishes.
- If the same child can be chosen for both lunch and dinner, construct a tree diagram or list a sample space of all the possible outcomes of who will wash dishes after lunch and dinner on Saturday.
 - Determine the probability that one boy and one girl will wash dishes after lunch and dinner on Saturday.

Part IV

37 The values of 11 houses on Washington St. are shown in the table below.

Value per House	Number of Houses
\$100,000	1
\$175,000	5
\$200,000	4
\$700,000	1

- Find the mean value of these houses in dollars.
- Find the median value of these houses in dollars.
- State which measure of central tendency, the mean or the median, *best* represents the values of these 11 houses. Justify your answer.

38 Solve the following systems of equations graphically, on the set of axes below, and state the coordinates of the point(s) in the solution set.

$$y = x^2 - 6x + 5$$

$$2x + y = 5$$

39 Solve for x : $\frac{x + 1}{x} = \frac{-7}{x - 12}$