

G.G.22: Locus: Solve problems using compound loci

- 1 Towns A and B are 16 miles apart. How many points are 10 miles from town A and 12 miles from town B ?
 - 1) 1
 - 2) 2
 - 3) 3
 - 4) 0

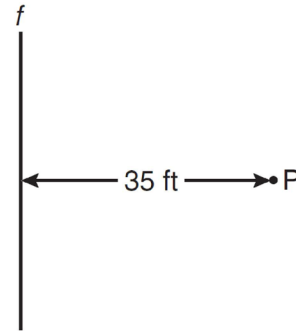
- 2 The distance between parallel lines ℓ and m is 12 units. Point A is on line ℓ . How many points are equidistant from lines ℓ and m and 8 units from point A .
 - 1) 1
 - 2) 2
 - 3) 3
 - 4) 4

- 3 What is the total number of points equidistant from two intersecting straight roads and also 300 feet from the traffic light at the center of the intersection?
 - 1) 1
 - 2) 2
 - 3) 3
 - 4) 4

- 4 How many points are equidistant from two parallel lines and also equidistant from two points on one of the lines?
 - 1) 1
 - 2) 2
 - 3) 3
 - 4) 4

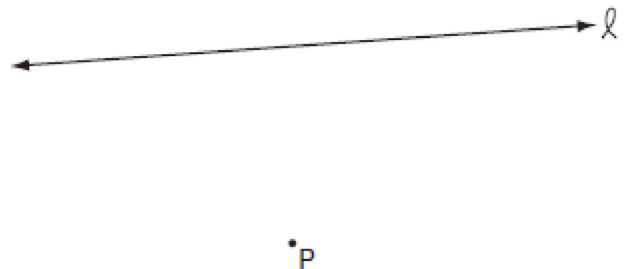
- 5 The distance between points P and Q is eight (8) units. How many points are equidistant from P and Q and also three (3) units from P ?
 - 1) 1
 - 2) 2
 - 3) 0
 - 4) 4

- 6 A man wants to place a new bird bath in his yard so that it is 30 feet from a fence, f , and also 10 feet from a light pole, P . As shown in the diagram below, the light pole is 35 feet away from the fence.



How many locations are possible for the bird bath?

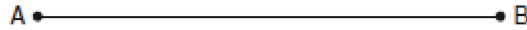
- 1) 1
 - 2) 2
 - 3) 3
 - 4) 0
-
- 7 In the accompanying diagram, point P lies 3 centimeters from line ℓ .



How many points are both 2 centimeters from line ℓ and 1 centimeter from point P ?

- 1) 1
- 2) 2
- 3) 0
- 4) 4

- 8 The length of \overline{AB} is 3 inches. On the diagram below, sketch the points that are equidistant from A and B and sketch the points that are 2 inches from A . Label with an **X** all points that satisfy both conditions.



- 9 In the diagram below, car A is parked 7 miles from car B . Sketch the points that are 4 miles from car A and sketch the points that are 4 miles from car B . Label with an **X** all points that satisfy both conditions.

Car A
●

Car B
●

- 10 In the diagram below, town C lies on straight road p . Sketch the points that are 6 miles from town C . Then sketch the points that are 3 miles from road p . How many points satisfy both conditions?

