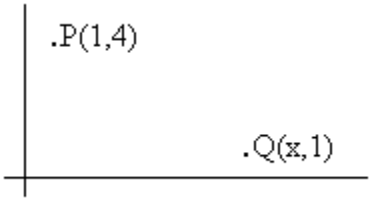
Numeric Entry Test 9

1.



2. The slope of the line passing through P and Q is -3/5. What is the value of x?

3. A tree of height 50 feet casts a shadow 80 feet long at a certain time of day. A second tree near to the first casts a shadow 100 feet long at the same time. How many feet taller is the second tree than the first?

4. If $p^2 - q^2 = 12$, and $p + q = 4$

What is the value of p ?

5. $x + y = 15$, $y + z = 25$, and $x + z = 20$

What is the average (arithmetic mean) of x,y and z ?

6. A field covers 149.8 square yards. A farmer harvests the crop from the field in three days. The first day he covers 2/7 of the area. The next day he covers twice as much. How many square yards does he cover on the last day?

7. A faulty odometer (mileage indicator) on a car registers 6 miles for every 5 miles actually travelled. At the start of a journey it reads 500 miles and the end of the journey it reads 560 miles. What distance has actually been covered?

No. of students	Marks
10	80
5	75
5	70
2	60
2	55
1	20

8. This question and the next refer to the above table showing the distribution of marks obtained in a Math test by a certain class

What is the difference between the mode and the median of the set of scores shown in the table above?

9. Refer to the table from the previous question

Tina's score was accidentally omitted from the list. When her score is added, the average (arithmetic mean) score for the class does not change. What is Tina's score?

Leaf Number (n)	Difference (d) between SA and mean SA
1	+0.1
2	0
3	-0.2
4	-0.3
5	+0.1
6	+0.4
7	0
8	-0.3

10. The surface area (SA) of a series of leaves was measured in a particular experiment. For each value of SA, the value d was calculated, where d is the difference between the value and the mean SA. The results were expressed in tabulated form as shown above.
If S represents the sum of all the values of | d |, what is the value of S?

Answer Key

1. 16
2. 6
3. 12.5
4. 3.5
5. 10
6. 21.4
7. 50
8. 5
9. 71
10. 1.4