YEAR 12 MATHS

The Normal Distribution

Use the 68–95–99.7 rule and z-scores

anythingpdf.com.au

Name: _____ **Date:** _____ **Score:** _____ / 11

Test results

Marks on a state-wide maths test are normally distributed with a mean of **70** and a standard deviation of **8** .

Use the 68–95–99.7 rule and z = (x −) ÷ .

1. Percentage of scores between 62 and 78 ≈ _____
2. Percentage between 54 and 86 ≈ _____
3. Percentage between 46 and 94 ≈ _____
4. Percentage above 78 ≈ _____
5. Percentage below 54 ≈ _____
6. Percentage between 70 and 86 ≈ _____
7. z-score for a test mark of 86 = _____
8. z-score for a test mark of 58 = _____
9. z-score for a test mark of 74 = _____
10. z-score for a test mark of 50 = _____
11. A student has z = 1.5. Their mark = _____

Free sample · more worksheets at anythingpdf.com.au

The Normal Distribution

Use the 68–95–99.7 rule and z-scores

anythingpdf.com.au

Use the 68–95–99.7 rule and z = (x -) ÷ .

1. 68%

2. 95%

3. 99.7%

4. 16%

5. 2.5%

6. 47.5%

7. 2

8. −1.5

9. 0.5

10. −2.5

11. 82

Free sample · more worksheets at anythingpdf.com.au