

**ENGINEERING DEPARTMENT - MATHS ASSESSMENT PAPER**

**PLEASE ATTEMPT ALL QUESTIONS**

**(Calculators may NOT be used. All rough work and calculations to be shown)**

**NAME \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ DATE \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

|  |  |  |  |
| --- | --- | --- | --- |
| **Q No.** | **Problem** | **Solution** | **Answer** |
| **1** | **263 + 89 =** |  |  |
| **2** | **145 – 68 =** |  |  |
| **3** | **63 x 9 =** |  |  |
| **4** | **138 ÷ 6 =** |  |  |
| **5** | **2 + 22 + 222 =** |  |  |
| **6** | **1004 – 562 =** |  |  |
| **7** | **51 x 33 =** |  |  |
| **8** | **525 ÷ 25 =** |  |  |
| **9** | **1/5 + 3/20 =** |  |  |
|  |  |  |  |
| **Q No.** | **Problem** | **Solution** | **Answer** |
| **10** | **3/4 - 2/3 =** |  |  |
| **11** | **3/16 x 4/9 =** |  |  |
| **12** | **1/4 + 1/10 =** |  |  |
| **13** | **2/5 x 60 =** |  |  |
| **14** | **4.8 + 21.3 =** |  |  |
| **15** | **2.1 – 2.01 =** |  |  |
| **16** | **3.7 x 6 =** |  |  |
| **17** | **15.3 ÷ 9 =** |  |  |
| **18** | **60 x 0.6 =** |  |  |
| **19** | **0.4 x 0.3 =** |  |  |
| **20** | **10 ÷ 0.2 =** |  |  |
| **21** | **Find the value of** $(2.5)^{2}$ |  |  |
| **22** | **What is** $√81$ |  |  |
| **23** | **Find the value of** $(5)^{3}$ |  |  |
|  |  |  |  |
| **Q No.** | **Problem** | **Solution** | **Answer** |
| **24** | **Express 1/4Kg in grams** |  |  |
| **25** | **Express 1/5m in cm** |  |  |
| **26** | **Divide £25 in the ratio 3:2** |  |  |
| **27** | **Write 3.046 correct to one decimal place** |  |  |
| **28** | **Write 3.046 correct to two significant figures** |  |  |
| **29** | **What is the value of the figure “5” in 2.65** |  |  |
| **30** | **What is the lowest number into which both 8 and 12 will go exactly** |  |  |
| **31** | **Express the ratio 27:36 in its simplest form** |  |  |
| **32** | **Write 20%**1. **As a fraction in its lowest terms**
2. **As a decimal**
 |  |  |
| **33** | **Write 0.7**1. **As a fraction**
2. **As a percentage**
 |  |  |
| **34** | **Write 3/20**1. **As a percentage**
2. **As a decimal**
 |  |  |
| **35** | **Write down all the numbers which are factors of both 20 and 30** |  |  |
| **36** | **What is the cost of 55 books at 95p each** |  |  |
|  |  |  |  |
| **Q No.** | **Problem** | **Solution** | **Answer** |
| **37** | **Write in order of size, smallest first; 68%, 0.65, 2/3** |  |  |
| **38** | **Find the perimeter of a square of side 5.5m** |  |  |
| **39** | **What is the volume in** $cm^{ 3 }$**of a cube of side 20cm** |  |  |
|  |  |  |  |
| **40** | **What is the area** $cm^{2}$ **of a rectangle 3.5cm x 2.5cm ?** |  |  |
| **41** | **An article priced at 320 is reduced in a sale by 20%. What is the price?** |  |  |
| **42** | **A train leaves Doncaster at 13.42 and arrives at King’s Cross at 16.08. How long does it take?** |  |  |
| **43** | **VAT at 15% is added to a bill of £8. How much VAT is paid?** |  |  |
| **44** | **What is the total mass in Kg of 150 ball bearings each of mass 25g ?** |  |  |
| **45** | **Six articles cost £2.50, £1.00, £3.00, £5.50, £4.00 and £2.00 respectively. What is the average cost of these articles?** |  |  |

M005









Calculate the area of circle ‘A’ ?

Calculate the area of ring ‘B’ ?

M006







Calculate the area of ‘A’ ?

M004



Calculate the circumference of the circle?

M003



Calculate the perimeter of the rectangle?

M002

A)



B)



C)

D)



Measure the length of the lines?

M001



Calculate the perimeter of the rectangle?