

## Worksheet: Real Numbers

NIOS · Class 10 · Mathematics · 6 questions · 16 marks

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Score: \_\_\_\_\_ / 16

**Q1.** Find the HCF of 96 and 404 using Euclid's division algorithm. Show all steps. *[3 marks]*

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**Q2.** If  $\text{HCF}(72, 120) = 24$ , find  $\text{LCM}(72, 120)$  using the  $\text{HCF} \times \text{LCM}$  identity. *[2 marks]*

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**Q3.** Prove that  $\sqrt{2}$  is irrational. *[3 marks]*

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**Q4.** Prove that  $\sqrt{5} - \sqrt{3}$  is irrational, given that  $\sqrt{3}$  is irrational. *[3 marks]*

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**Q5.** Without performing long division, determine whether  $\frac{17}{6250}$  has a terminating or non-terminating decimal expansion. *[2 marks]*

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**Q6.** Two tankers contain 850 L and 680 L of petrol. Find the maximum capacity of a container that can measure both quantities exactly (without any leftover). *[3 marks]*

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