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| 1. | A hollow iron pipe is 21 cm long and its external diameter is 8 cm. If the thickness of the pipe is 1 cm and iron weighs 8 g/cm3, then the weight of the pipe is: |
| |  |  |  |  | | --- | --- | --- | --- | |  | A. | |  | | --- | | 3.6 kg | | |  | B. | |  | | --- | | 3.696 kg | | |  | C. | |  | | --- | | 36 kg | | |  | D. | |  | | --- | | 36.9 kg | | |

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| 2. | The product of two numbers is 120 and the sum of their squares is 289. The sum of the number is: |
| |  |  |  |  | | --- | --- | --- | --- | |  | A. | |  | | --- | | 20 | | |  | B. | |  | | --- | | 23 | | |  | C. | |  | | --- | | 169 | | |  | D. | |  | | --- | | None of these | | |

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| 3. | A two-digit number is such that the product of the digits is 8. When 18 is added to the number, then the digits are reversed. The number is: |
| |  |  |  |  | | --- | --- | --- | --- | |  | A. | |  | | --- | | 18 | | |  | B. | |  | | --- | | 24 | | |  | C. | |  | | --- | | 42 | | |  | D. | |  | | --- | | 81 | | |

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| 4. | A can contains a mixture of two liquids A and B is the ratio 7 : 5. When 9 litres of mixture are drawn off and the can is filled with B, the ratio of A and B becomes 7 : 9. How many litres of liquid A was contained by the can initially? |
| |  |  |  |  | | --- | --- | --- | --- | |  | A. | |  | | --- | | 10 | | |  | B. | |  | | --- | | 20 | | |  | C. | |  | | --- | | 21 | | |  | D. | |  | | --- | | 25 | | |

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| 5. | To fill a tank, 25 buckets of water is required. How many buckets of water will be required to fill the same tank if the capacity of the bucket is reduced to two-fifth of its present ? |
| |  |  |  |  | | --- | --- | --- | --- | |  | A. | |  | | --- | | 10 | | |  | B. | |  | | --- | | 35 | | |  | C. | |  | | --- | | 62.5 | | |  | D. | |  | | --- | | Cannot be determined | | |

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| 6. | Which of the following statements is not correct? |
| |  |  |  |  | | --- | --- | --- | --- | |  | A. | |  | | --- | | log10 10 = 1 | | |  | B. | |  | | --- | | log (2 + 3) = log (2 x 3) | | |  | C. | |  | | --- | | log10 1 = 0 | | |  | D. | |  | | --- | | log (1 + 2 + 3) = log 1 + log 2 + log 3 | | |