Chapter: Decimals

Homework 3: Advanced Operations on Decimals

Nalanda Academy, Wardha

Important Reminders

- Multiplication: Multiply as whole numbers first, then count total decimal places from the right in the product.

- Division: Make the divisor a whole number by shifting the decimal point, shift the same number of places in the dividend.

- Multiplying or dividing by 10, 100, 1000 etc.: Just move the decimal point (right for $\times$, left for $\div$).

- In word problems: Always show step-by-step working – write the given information, the operation(s) used, and the final answer with unit.

Section A – Pure Calculation Exercises (Questions 1–100)

1. 0.7×8
2. 0.6×0.9
3. 4.5×3
4. 2.4×0.5
5. 1.25×4
6. 0.08×9
7. 3.6×2.5
8. 0.45×0.8
9. 2.1×3.2
10. 5.6×0.4
11. 0.36×0.25
12. 7.8×0.12
13. 9.5×0.06
14. 15.2×0.3
15. 0.075×8
16. 4.25×6
17. 0.625×16
18. 8.4×0.75
19. 3.96×2.5

20. 1.44×0.625
21. 0.84×5.5
22. 6.25×0.48
23. 9.36×0.25
24. 2.08×7.5
25. 0.096×125
26. 12.5×0.64
27. 4.096×2.5
28. 0.729×400
29. 7.8125×0.16
30. 0.390625×256
31. $6.3 \div 7$
32. $4.5 \div 0.9$
33. $18.75 \div 2.5$
34. $0.96 \div 0.24$
35. $12.8 \div 0.8$
36. $3.6 \div 0.45$
37. $25 \div 0.5$
38. $1.44 \div 0.12$

39. $9.6 \div 1.6$
40. $0.625 \div 0.125$
41. $48.6 \div 3.6$
42. $7.875 \div 1.25$
43. $0.4096 \div 0.064$
44. $15.36 \div 0.96$
45. $81 \div 2.7$
46. $0.2401 \div 0.07$
47. $36.45 \div 4.05$
48. $4.8384 \div 0.64$
49. $0.15625 \div 0.03125$
50. $72 \div 1.44$
51. $9.7248 \div 1.2156$
52. $250 \div 12.5$
53. $0.00081 \div 0.00009$
54. $48.96 \div 6.4$
55. $3.9375 \div 0.625$
56. $16.2 \div 0.27$
57. $0.9801 \div 0.081$

58. $28.35 \div 3.15$

59. $81.92 \div 1.28$

60. $625 \div 12.5$

61. 4.56×10

62. 0.0789×100

63. 12.345×1000

64. 0.0067×10000

65. $789.6 \div 10$

66. $4567.8 \div 100$

67. $0.934 \div 1000$

68. 5.0625×1000

69. 0.048×5000

70. $9600 \div 1200$

71. 2.56×125

72. $0.729 \div 0.09$

73. 48.6×0.05

74. $7.8125 \div 0.0625$

75. 0.144×2500

76. $81000 \div 9000$

77. 1.024×625

78. $0.01944 \div 0.0081$

79. 36.45×20

80. $4096 \div 512$

81. $4.8 \times 2.5 + 3.6 \div 1.2$

82. $15.75 - 6.4 \times 0.85$

83. $(9.6 + 4.25) \div 0.75$

84. $12.5 \times 0.4 - 3.75 \div 1.25$

85. $0.72 \times 8.5 + 4.096 \div 0.64$

86. $25.2 \div 3.6 + 7.84 \times 0.25$

87. $18.75 - (6.4 \times 1.25)$

88. $(48.6 \div 2.7) \times 0.9$

89. $3.125 \times 16 - 7.68 \div 0.96$

90. $0.875 \times 4.8 + 9.36 \div 2.4$

91. $56.25 \div 2.25 - 4.096 \times 0.625$

92. $7.2 \times (3.45 + 1.55)$

93. $(12.96 \div 0.36) - 8.1 \times 0.4$

94. $0.625 \times 9.6 + 15 \div 2.5$

95. $24.3 - 6.75 \times 1.2$

96. $(4.8 \times 3.75) \div 1.8$

97. $9.45 + 12.5 \times 0.08$

98. $81 \div 2.7 + 0.36 \times 125$

99. $16.875 - (5.6 \times 2.25)$

100. $0.4096 \times 2500 \div 100$

Section B – Word Problems & Real-life Applications (Questions 101–200)

Show complete step-by-step working for each question. Write the given information, the calculation steps, and the final answer with proper unit.

101. A shopkeeper sells apples at 48.60 per kilogram. If a customer buys 3.5 kg of apples, how much money will he have to pay?

102. Petrol costs 102.45 per litre at a filling station. How much will a driver pay if he fills 7.8 litres in his bike?

103. A gift shop sells decorative ribbon at 18.80 per metre. What will be the total cost if a customer needs 4.25 metres for packing gifts?

104. Milk is sold at 64.50 per litre in a dairy booth. Calculate the amount to be paid for 0.75 litre of milk.

105. A cloth merchant charges 135.75 per metre for cotton fabric. Find the total cost if a tailor buys 6.4 metres for making shirts.

106. In a supermarket, one packet of biscuits costs 28.40. How much will a family pay if they buy 12 such packets?

107. Sugar is available at 46.90 per kilogram in a grocery store. What is the cost of purchasing 2.4 kg of sugar?

108. The bus fare from Nashik to Mumbai is 14.75 per person. Calculate the total fare if 5 family members are travelling together.

109. A hardware shop sells paint at 285.50 per litre. How much will a painter pay for 3.6 litres of paint?

110. Tomatoes are priced at 78.20 per kilogram in the vegetable market. Find the cost of 0.45 kg of tomatoes.

111. A worker earns 875.60 per day. How much money will he earn after working for 22 days in a month?

112. An electrician charges 9.60 per metre for electrical wire. What is the total cost for 8.5 metres of wire?

113. In a poultry shop, one dozen eggs cost 78.50. Calculate the amount for 4.2 dozen eggs.

114. Cooking oil is sold at 198.40 per litre. How much will a housewife pay for 1.25 litres of oil?

115. A rice merchant sells basmati rice at 52.75 per kilogram. Find the total cost of 15.6 kg of rice.

116. A car gives an average mileage of 14.2 km per litre. How much petrol will be consumed for a journey of 84.5 km?

117. Pure ghee is available at 612.50 per kilogram. Calculate the cost of 0.8 kg of ghee.

118. A carpenter charges 185.40 per hour for furniture work. How much will he earn if he works for 3.75 hours?

119. A fencing contractor uses wire costing 44.80 per metre. Find the total cost for 9.6 metres of fencing wire.

120. A juice centre sells orange juice at 96.80 per litre. What is the price for 2.25 litres of juice?

121. A scooter travels at an average speed of 48.6 km per hour. How many kilometres will it cover in 3.4 hours?

122. A spice shop sells turmeric powder at 425.00 per kilogram. Calculate the cost of 0.36 kg of turmeric.

123. Cement is sold at 8.90 per kilogram in a building material store. Find the total cost for 7.5 kg of cement.

124. A boutique charges 225.75 per metre for curtain cloth. How much will a customer pay for 4.8 metres?

125. A water supplier charges 0.90 per litre for drinking water. Calculate the bill for 12.5 litres.

126. A rectangular garden has length 6.4 m and width 3.75 m. Find its area in square metres.

127. A rectangular box has dimensions 2.5 m $\times$ 1.8 m $\times$ 0.9 m. Calculate its volume in cubic metres.

128. A sweet shop sells chocolate at 840 per kilogram. How much will 0.625 kg of chocolate cost?

129. A car consumes 0.068 litre of petrol per kilometre. How much petrol will be required for a 450 km journey?

130. A bus covers 62.4 km in 2.25 hours. What is the average speed of the bus in km/h?

131. A vegetable vendor buys 8.4 kg potatoes at 32.50 per kg and sells them at 38.75 per kg. Calculate his profit.

132. A train travels 285.6 km in 4.8 hours. What is the average speed of the train?

133. A tailor buys 5.25 metres of fabric at 145.80 per metre. Find the total cost of the fabric.

134. A pharmacy sells cough syrup at 920 per litre. Calculate the price for 0.45 litre of syrup.

135. A household consumes 245.8 units of electricity in a month at 7.65 per unit. What is the electricity bill?

136. A customer buys 3.6 kg wheat at 42.80/kg and 2.4 kg rice at 58.90/kg. Find the total amount paid.

137. A cyclist rides at 18.75 km/h for 2.4 hours. How much distance does he cover?

138. A painting contractor buys 4.8 litres of paint at 420.75 per litre. Calculate the total cost.

139. A dry fruit seller charges 1120 per kg for cashews. What is the cost of 0.875 kg?

140. A water pump fills a tank with 78.4 litres in 3.5 minutes. What is the filling rate per minute?