Multiplying and Dividing Decimals by 10, 100 and 1000

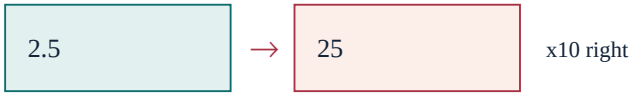
Unit: Decimals - Student Practice Worksheet

Overview: A lab technician needed to convert 0.045 litres of solution into millilitres, fast, with a class of ten-year-olds watching. No calculator, no long multiplication. Just a pen and about two seconds. She didn't multiply anything — she moved a dot.

Practice Questions (30 Total)

Section A - Easy

Q1. Point slides one place right. 2.5 x 10?



- [ ] **A.** 25
- [ ] **B.** 2.50
- [ ] **C.** 0.25
- [ ] **D.** 250

Q2. Compute 3.4 × 100

- [ ] **A.** 34
- [ ] **B.** 340
- [ ] **C.** 0.34
- [ ] **D.** 3400

Q3. Compute 5.6 ÷ 10

- [ ] **A.** 56
- [ ] **B.** 5.06
- [ ] **C.** 0.056
- [ ] **D.** 0.56

Q4. Point slides two places left. 45 ÷ 100?

- [ ] **A.** 0.45
- [ ] **B.** 4.5
- [ ] **C.** 0.045
- [ ] **D.** 450

Q5. Compute 0.7 × 10

- [ ] **A.** 0.07
- [ ] **B.** 70
- [ ] **C.** 7
- [ ] **D.** 0.70

Q6. Compute 8 ÷ 10

- [ ] **A.** 80
- [ ] **B.** 0.08
- [ ] **C.** 0.8
- [ ] **D.** 8.0

Q7. Point slides two places right. 0.05 x 100?

- [ ] **A.** 0.5
- [ ] **B.** 50
- [ ] **C.** 500
- [ ] **D.** 5

Q8. Compute 1.2 × 1000

- [ ] **A.** 12
- [ ] **B.** 1200
- [ ] **C.** 120
- [ ] **D.** 0.12

Q9. Compute 6.7 × 10

- [ ] **A.** 0.67
- [ ] **B.** 67
- [ ] **C.** 670
- [ ] **D.** 6.70

Q10. Slide three places left: 900 ÷ 1000.

- [ ] **A.** 0.9
- [ ] **B.** 9
- [ ] **C.** 90
- [ ] **D.** 0.09

Section B - Medium

Q11. Three places right: 0.045 x 1000?

- [ ] **A.** 45
- [ ] **B.** 4.5
- [ ] **C.** 450
- [ ] **D.** 0.45

Q12. Compute 12.5 ÷ 100

- [ ] **A.** 1.25
- [ ] **B.** 0.125
- [ ] **C.** 125
- [ ] **D.** 0.0125

Q13. Compute 7 ÷ 1000

- [ ] **A.** 0.7
- [ ] **B.** 0.07
- [ ] **C.** 70
- [ ] **D.** 0.007

Q14. Two places right: 3.06 x 100?

- [ ] **A.** 3060
- [ ] **B.** 30.6
- [ ] **C.** 306
- [ ] **D.** 0.306

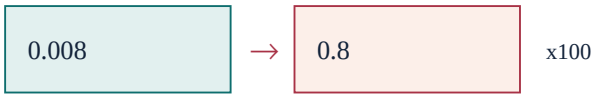
Q15. Compute 250 ÷ 100

- [ ] **A.** 0.25
- [ ] **B.** 25
- [ ] **C.** 2.5
- [ ] **D.** 2500

Q16. Compute 45.6 ÷ 10

- [ ] **A.** 456
- [ ] **B.** 0.456
- [ ] **C.** 45.06
- [ ] **D.** 4.56

Q17. Two places right: 0.008 x 100?



- [ ] **A.** 0.08
- [ ] **B.** 8
- [ ] **C.** 0.8
- [ ] **D.** 80

Q18. Compute 0.9 × 1000

- [ ] **A.** 900
- [ ] **B.** 90
- [ ] **C.** 9000
- [ ] **D.** 0.0009

Q19. Compute 5000 ÷ 1000

- [ ] **A.** 50
- [ ] **B.** 5
- [ ] **C.** 0.5
- [ ] **D.** 500

Q20. Slide three places right: 1.234 x 1000.

- [ ] **A.** 1234
- [ ] **B.** 123.4
- [ ] **C.** 12340
- [ ] **D.** 0.1234

Section C - Challenge

Q21. 2.5, then x10, then x100. Product?

- [ ] **A.** 2500
- [ ] **B.** 250
- [ ] **C.** 25000
- [ ] **D.** 0.25

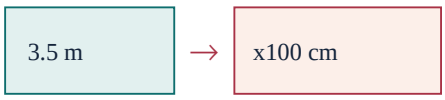
Q22. Compute 450 ÷ 10 ÷ 100

- [ ] **A.** 4.5
- [ ] **B.** 0.45
- [ ] **C.** 45
- [ ] **D.** 0.045

Q23. Compute 6.25 × 100 ÷ 1000

- [ ] **A.** 6.25
- [ ] **B.** 62.5
- [ ] **C.** 0.0625
- [ ] **D.** 0.625

Q24. Tape 3.5 m converted to centimetres. How many cm?



- [ ] **A.** 350 cm
- [ ] **B.** 35 cm
- [ ] **C.** 3500 cm
- [ ] **D.** 0.35 cm

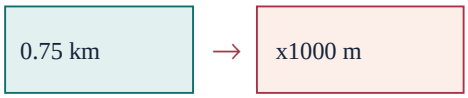
Q25. Convert 4500 g to kilograms.

- [ ] **A.** 45 kg
- [ ] **B.** 4.5 kg
- [ ] **C.** 0.45 kg
- [ ] **D.** 45000 kg

Q26. Convert 250 ml to litres.

- [ ] **A.** 2.5 L
- [ ] **B.** 25 L
- [ ] **C.** 0.025 L
- [ ] **D.** 0.25 L

Q27. 0.75 km on a road sign, in metres. How many m?



- [ ] **A.** 75 m
- [ ] **B.** 7.5 m
- [ ] **C.** 750 m
- [ ] **D.** 7500 m

Q28. Compute 0.0032 × 10000

- [ ] **A.** 3.2
- [ ] **B.** 320
- [ ] **C.** 32
- [ ] **D.** 3200

Q29. Convert 6.05 kg to grams.

- [ ] **A.** 605 g
- [ ] **B.** 6050 g
- [ ] **C.** 60500 g
- [ ] **D.** 0.605 g

Q30. 12.5 x 1000 then ÷ 100. Net result?

- [ ] **A.** 125
- [ ] **B.** 12.5
- [ ] **C.** 1.25
- [ ] **D.** 1250

Answer Key

Q1: (A) (a) 25. The point slides one place right.

Q2: (B) (b) 340. Two zeros in 100 means the point slides two places right.

Q3: (D) (d) 0.56. Dividing slides the point one place left.

Q4: (A) (a) 0.45. Two places left for dividing by 100.

Q5: (C) (c) 7. The point slides one place right, and the trailing zero can be dropped.

Q6: (C) (c) 0.8. First give 8 a decimal point (8.0), then slide it one place left.

Q7: (D) (d) 5. Two places right, and the leading zeros disappear once the point passes them.

Q8: (B) (b) 1200. Three places right for multiplying by 1000.

Q9: (B) (b) 67. One place right.

Q10: (A) (a) 0.9. Three places left, padding with a leading zero as needed.

Q11: (A) (a) 45. Three places right — exactly Priya's litres-to-millilitres conversion.

Q12: (B) (b) 0.125. Two places left.

Q13: (D) (d) 0.007. Give 7 three decimal places first (7.000), then slide left.

Q14: (C) (c) 306. Two places right.

Q15: (B) (b) 25. Two places left.

Q16: (D) (d) 4.56. One place left.

Q17: (C) (c) 0.8. Two places right.

Q18: (A) (a) 900. Three places right.

Q19: (B) (b) 5. Three places left.

Q20: (A) (a) 1234. Three places right, using up every decimal digit exactly.

Q21: (A) (a) 2500. Together that is ×1000, so three places right in total.

Q22: (B) (b) 0.45. Together that is ÷1000, so three places left in total.

Q23: (D) (d) 0.625. Two places right then three places left nets one place left overall.

Q24: (A) (a) 350 cm. One metre is 100 cm, so multiply by 100 — two places right.

Q25: (B) (b) 4.5 kg. One kg is 1000 g, so divide by 1000 — three places left.

Q26: (D) (d) 0.25 L. Divide by 1000 — three places left.

Q27: (C) (c) 750 m. One km is 1000 m, so multiply by 1000 — three places right.

Q28: (C) (c) 32. Four zeros in 10000 means four places right.

Q29: (B) (b) 6050 g. Multiply by 1000 — three places right, carrying the existing two decimal digits along with an extra zero.

Q30: (A) (a) 125. Three places right then two places left nets one place right overall.

You've got this! Keep learning and shining! - Ruchi Math Coaching