UNIT 11 Fractions and Percentages   Mental Tests

Test 11.1 *(no calculator)*

1. Write 25% as a fraction in its simplest form. $(\frac{1}{4})$

2. Convert 0.37 to a percentage.   (37%)

3. Convert $\frac{9}{20}$ to a percentage.   (45%)

4. What is $\frac{1}{5}$ of 40 km?   (8 km)

5. Find 15% of 200 gm.   (30 gm)

6. A shopkeeper buys chocolate bars for 20p each and sells them for 25p each.
   What is his percentage profit on each bar?   (25%)

7. VAT is currently $17\frac{1}{2}$% What is the VAT to be added to a bill of £400?   (£70)

8. Find   (a) $\frac{1}{2} + \frac{3}{8}$ $(\frac{7}{8})$

   (b) $\frac{3}{7} \times \frac{28}{15}$ $(\frac{4}{5})$

   (c) $\frac{12}{5} \div \frac{4}{15}$ (9)

Test 11.2 *(no calculator)*

1. Write 30% as a fraction in its simplest form. $(\frac{3}{10})$

2. Convert 0.4 to a percentage.   (40%)

3. Convert $\frac{3}{25}$ to a percentage.   (12%)

4. What is $\frac{3}{8}$ of 32 cm?   (12 cm)

5. Find 30% of 250 litres.   (75 litres)

6. You bought a CD player for £50 and sold it for £65.
   What is the percentage profit made?   (30%)

7. VAT is currently $17\frac{1}{2}$%. What is the VAT to be added to a bill of £500?   (£87.50)

8. Find   (a) $\frac{2}{5} + \frac{1}{3}$ $(\frac{11}{15})$

   (b) $\frac{9}{11} \times \frac{44}{27}$ $(\frac{4}{3})$

   (c) $\frac{15}{4} \div \frac{25}{2}$ $(\frac{3}{10})$

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Test 11.3 *(no calculator)*

1. Your hourly rate of pay of £2.50 is increased by 10%. What is the new rate of pay?   (£2.75)

2. A bike costs £200 plus VAT at $17\frac{1}{2}$%. What is the total cost of the bike?   (£235)

3. Decrease £500 by 7%.   (£465)

4. Increase a salary of £12 000 by 5%.   (£12 600))

5. The cost of a one minute telephone call decreases from 20p to 17p.
    What is the percentage decrease?   (15%)

6. Find   (a) $\dfrac{1}{5} + \dfrac{2}{15}$ ($\dfrac{1}{3}$)

             (b) $\dfrac{3}{4} \times \dfrac{16}{27}$ ($\dfrac{4}{9}$)

             (c) $\dfrac{7}{12} \div \dfrac{14}{27}$ ($\dfrac{9}{8}$)

7. A person invests £100 in an account that pays 10% interest each year.
    Find the value of the investment after 2 years.   (£121)

8. After a 20% discount, the new price is £160. What was the original price?   (£200)

Test 11.4 *(no calculator)*

1. Your hourly rate of pay of £3.00 is increased by 5%. What is the new rate of pay?   (£3.15)

2. A TV costs £400 plus VAT at $17\frac{1}{2}$%. What is the total cost of the TV?   (£470)

3. Decrease £350 by 4%.   (£336)

4. Increase a salary of £15 000 by 7%.   (£16 050))

5. The cost of a ticket is reduced from £25 to £20. What is the percentage decrease?   (20%)

6. Find   (a) $\dfrac{3}{7} + \dfrac{2}{5}$ ($\dfrac{29}{35}$)

             (b) $\dfrac{4}{9} \times \dfrac{27}{20}$ ($\dfrac{3}{5}$)

             (c) $\dfrac{8}{15} \div \dfrac{4}{25}$ ($\dfrac{10}{3}$)

7. You invest £1000 in an account that pays 20% interest each year.
    Find the value of your investment after 2 years.   (£1440)

8. After a 10% discount, the new price is £360. What was the original price?   (£400)