Year 5 · Number: Fractions, Decimals & Percentages

Name: _____ Date: _____

Hi! This sheet helps you practise turning between fractions, decimals and percentages, and using them to solve real problems. Take your time and show your working, you've got this!

Warm-up

1. Write 7/10 as a decimal.

2. Write 0.25 as a fraction and as a percentage.

3. Divide 6 by 100.

4. Which is larger: 0.3 or 0.12?

Practice

5. Order these decimals from smallest to largest: 3.55, 3.5, 3.84, 3.08.

6. Multiply 4.27 by 100.

7. Work out 2/3 + 1/9.

8. Aroha's water bottle holds 1.31 litres. She adds another 0.22 litres. How much water is in the bottle now?

9. At Avondale Primary there are 24 pupils in Room 6. 2/3 of them walk to school. How many pupils walk to school?

10. A jacket at The Warehouse costs $80. It is reduced by 25%. How much money is taken off the price?

Challenge

11. Tama has collected 8 shells. This is 2/5 of all the shells he wants for his art project. How many shells does he want altogether?

12. A recipe uses 5/4 cups of flour and 3/4 cups of sugar. Write 5/4 as a mixed number, then find the total number of cups of flour and sugar.

Answer key (for parents and tutors)

1. Write 7/10 as a decimal.
   7/10 means 7 tenths. One tenth is 0.1, so 7 tenths is 0.7.
2. Write 0.25 as a fraction and as a percentage.
   0.25 = 25/100, which simplifies to 1/4. As a percentage it is 25%.
3. Divide 6 by 100.
   6 ÷ 100 = 0.06. The 6 moves two places to the right into the hundredths place.
4. Which is larger: 0.3 or 0.12?
   0.3 is the same as 0.30. Compare 0.30 and 0.12: 30 hundredths is more than 12 hundredths, so 0.3 is larger. 0.3 > 0.12.
5. Order these decimals from smallest to largest: 3.55, 3.5, 3.84, 3.08.
   Line up the decimal places. 3.08 (8 hundredths), then 3.5 (=3.50), then 3.55, then 3.84. Answer: 3.08, 3.5, 3.55, 3.84.
6. Multiply 4.27 by 100.
   When you multiply by 100 each digit moves two places to the left. 4.27 × 100 = 427.
7. Work out 2/3 + 1/9.
   The denominators are not the same, but 9 is a multiple of 3. Change 2/3 into ninths: 2/3 = 6/9. Then 6/9 + 1/9 = 7/9.
8. Aroha's water bottle holds 1.31 litres. She adds another 0.22 litres. How much water is in the bottle now?
   Add the decimals: 1.31 + 0.22. Hundredths: 1+2=3. Tenths: 3+2=5. Ones: 1+0=1. Total = 1.53 litres.
9. At Avondale Primary there are 24 pupils in Room 6. 2/3 of them walk to school. How many pupils walk to school?
   Find 1/3 of 24 first: 24 ÷ 3 = 8. Then 2/3 is 2 × 8 = 16. So 16 pupils walk to school.
10. A jacket at The Warehouse costs $80. It is reduced by 25%. How much money is taken off the price?
    25% is the same as 1/4. Find 1/4 of $80: 80 ÷ 4 = 20. So $20 is taken off the price.
11. Tama has collected 8 shells. This is 2/5 of all the shells he wants for his art project. How many shells does he want altogether?
    If 2/5 is 8 shells, then 1/5 is 8 ÷ 2 = 4 shells. The whole set is 5/5, so 5 × 4 = 20 shells. Tama wants 20 shells altogether.
12. A recipe uses 5/4 cups of flour and 3/4 cups of sugar. Write 5/4 as a mixed number, then find the total number of cups of flour and sugar.
    5/4 = 4/4 + 1/4 = 1 and 1/4 cups. To add flour and sugar, use the same denominator: 5/4 + 3/4 = 8/4 = 2 cups. So there are 2 cups in total.