# Year 8 Mathematics Learning Journey: Unit 12 – Fractions and Percentages

**Step 13 (H): Complex percentages**

After a 18% pay rise, Dora's salary is £38 350. What was her original salary?

**Step 11 & 12 (H): Find original more and less than 100%**

Whitney flips a coin and gets heads 45% of the time. She gets heads 54 times. How many times did she flip the coin?

**Step 10: Choose appropriate methods**

What percentage of £70 is £30?

**Step 9: Work with percentage change**

Alex invests £60 000 in a saver account that pays 2.5% interest per year. How much does he earn in interest in 5 years?

**Step 5: Percentage decrease: multipliers**

What is the multiplier for a 10% reduction followed by another 10% reduction?

**Step 6: Increase and decrease: multipliers**

What is the percentage increase if you double a number?

**Step 7: Express as a percentage (non-calculator)**

A bag contains green and red counters in the ratio 12:13: What percentage of the counters are green?

**Step 8: Express as a percentage (calculator)**

Is it possible to work out 70 as a percentage of 65?

**Step 4: Convert decimals and percentages above and below 100%**

Is it possible to have a percentage above 100%? If so, how?

**Step 3 (R): FDP with a calculator**

What keys could you press to find 23% of 45?

**Step 2 (R): FDP mental calculations**

Explain how to find $\frac{3}{7}$ of an amount.

**Step 1 (R): FDP conversions**

Explain why one third is not the same as 0.3 or 30%.

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