

Rational Expressions - Word Problems

Task 1. The numerator of a fraction is equal to 5. If we increase the denominator of that fraction by 27 and the numerator by 15, the value of the fraction does not change. What is the value of the fraction?

Task 2. The larger excavator dug $\frac{1}{3}$ lengths of trench in 4 hours. The smaller excavator finished digging the trench in 10 hours. How long would the job have taken if both excavators had been working together at the same time?

Task 3. A car and a motorcycle set off on a 120 km journey at the same time. The car arrived 10 min later than the motorcycle. What were the average speeds of both vehicles if the motorcycle was travelling 8 km/h faster than the car?