Fractions, Decimals and Percentages

Number · 6 questions · step-by-step answers at the end

Name: Date: Score: / 6

USEFUL EQUATIONS

a/b + c/d = (ad + bc)/(bd) a/b ÷ c/d = a/b × d/c new = original × (1 ± p/100)

original = new ÷ multiplier

Questions

Show your working in the space under each question.

1. EASY Find 3/5 of 45.

2. EASY Work out 7/8 − 1/6.

3. MEDIUM Work out 2 1/2 ÷ 3/4.

4. MEDIUM Increase 240 by 12.5%.

5. HARD Write the recurring decimal 0.454545… as a fraction.

6. HARD A town's population rose by 8% to 5940. What was it before?

Step-by-step answers

Fractions, Decimals and Percentages

1. 45 ÷ 5 = 9, and 9 × 3 = **27**.
2. Common denominator 24: 21/24 − 4/24 = **17/24**.
3. 2 1/2 = 5/2. Flip and multiply: 5/2 × 4/3 = 20/6 = **10/3 = 3 1/3**.
4. Multiplier 1.125: 240 × 1.125 = **270**.
5. Let x = 0.4545… Then 100x = 45.4545… Subtract: 99x = 45, so x = 45/99 = **5/11**.
6. Multiplier 1.08: 5940 ÷ 1.08 = **5500**.