Year 8 Fractions and Recurring Decimals – Developing

ANSWER KEY HappyKids.fit

Answers and worked solutions · 10 questions

A. Use fractions

1. 7/30, 2/15

In its simplest form, a fraction is a terminating decimal only if its denominator has no prime factors except 2 and 5

7/30: $2 \times 3 \times 5$; 7/20: $2^2 \times 5$; 2/15: 3×5; 4/25: 5^2

2. 2/15, 1/12

In its simplest form, a fraction is a terminating decimal only if its denominator has no prime factors except 2 and 5

2/15: 3×5; 1/12: $2^2 \times 3$; 7/20: $2^2 \times 5$; 3/8: 2^3

3. 1/2 m

$3 - 2\ 1/2 = 3 - 5/2$

$= 1/2$ m

4. 25 1/2 cups

$6 \times 4\ 1/4$

$= 25\ 1/2$ cups

5. 15 bottles

$10 \div 2/3 = 10 \times 3/2$

$= 15$

6. 2/7

$(5/6 \times 6/5) \times 2/7 = 1 \times 2/7$

$= 2/7$

7. 46

$4.6 \times (25 \times 0.4) = 4.6 \times 10$

$= 46$

8. 1 23/30

Estimate: about $7 - 5 = 2$

As improper fractions: $33/5 - 29/6$

$= 53/30 = 1\ 23/30$

9. 5 5/7

Dividing by 7/10 is the same as multiplying by 10/7

$4 \times 10/7 = 5\ 5/7$

10. Both parts must be multiplied: $2 \times 4 = 8$ and $2 \times 1/2 = 1$, so the answer is 9.

Error: only the whole number was multiplied

$2 \times 1/2 = 1$

Total: 9