Year 8 Prime Factors and Rounding – Foundation

ANSWER KEY

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Answers and worked solutions · 10 questions

A. Factor and rounding skills

1. $2^2 \times 3 \times 5 \times 7$

420 = 2 × 210, 210 = 2 × 105, 105 = 3 × 35...
420 = $2^2 \times 3 \times 5 \times 7$

2. $3^2 \times 5 \times 7$

315 = 3 × 105, 105 = 3 × 35, 35 = 5 × 7...
315 = $3^2 \times 5 \times 7$

3. $2 \times 3 \times 5 \times 11$

330 = 2 × 165, 165 = 3 × 55, 55 = 5 × 11...
330 = $2 \times 3 \times 5 \times 11$

4. 296

÷ 0.01 is the same as × 100
= 296

5. 817

÷ 0.1 is the same as × 10
= 817

6. 8610

÷ 0.01 is the same as × 100
= 8610

7. 71.1

The first significant figure is the first non-zero digit
Keep 3, look at the next digit, then fill with zeros if needed
= 71.1

8. 500 000

The first significant figure is the first non-zero digit
Keep 1, look at the next digit, then fill with zeros if needed
= 500 000

9. 0.007

The first significant figure is the first non-zero digit
Keep 1, look at the next digit, then fill with zeros if needed
= 0.007

10. HCF = $2^2 \times 3^2 = 36$; LCM = $2^2 \times 3^3 \times 5 \times 7 = 3780$

HCF: primes in both, smaller powers: 36
LCM: every prime, larger powers: 3780