

## Solutions

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**2.1**  $48=2^4 \times 3$  and  $60=2^2 \times 3 \times 5$ . The shared smallest powers give  $\text{HCF}=2^2 \times 3=12$ .

**2.2**  $8=2^3$  and  $12=2^2 \times 3$ . The largest prime powers give  $\text{LCM}=2^3 \times 3=24$ .

**2.3** Use denominator 12:  $3/4+5/6=9/12+10/12=19/12$ .

**3.1** False.  $\text{HCF}(12,18)=6$ , which is less than both. A positive common divisor cannot exceed either number it divides.

Local review guidance: show the chosen method; give the checked result; explain the condition or failed shortcut. This is authored classroom guidance.