

Exercise 1.5



answers on p 418

No calculators may be used

1. Find the HCF of each of the following pairs of numbers.

- | | | |
|--------------|----------------|-------------|
| (a) 8, 9 | (b) 11, 13 | (c) 12, 42 |
| (d) 15, 16 | (e) 15, 27 | (f) 15, 42 |
| (g) 15, 60 | (h) 15, 63 | (i) 16, 56 |
| (j) 18, 45 | (k) 20, 21 | (l) 24, 19 |
| (m) 24, 48 | (n) 24, 108 | (o) 28, 54 |
| (p) 36, 162 | (q) 36, 243 | (r) 42, 36 |
| (s) 42, 63 | (t) 45, 42 | (u) 60, 84 |
| (v) 96, 36 | (w) 108, 48 | (x) 165, 99 |
| (y) 425, 200 | (z) 546, 1 521 | |

2. Find the HCF of each of the following sets of numbers.

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|-----------------------|-----------------------|-----------------------|
| (a) 4, 5, 9 | (b) 12, 42, 72 | (c) 16, 72, 104 |
| (d) 35, 420, 245 | (e) 47, 9, 25 | (f) 4, 5, 7, 9 |
| (g) 24, 156, 180, 204 | (h) 30, 126, 105, 255 | (i) 96, 144, 136, 344 |

*3. The HCF of two numbers is 12. If the sum of the two numbers is 72, find the numbers.

*4. The HCF of two numbers is 8. If the sum of the two numbers is 72, find the numbers (Give all the possible pairs of numbers.)

Exercise 1.6*answers on p 418*

Whole Numbers

1. Find the LCM of each of the following pairs of numbers

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|--------------|--------------|--------------|
| (a) 2, 17 | (b) 3, 5 | (c) 4, 9 |
| (d) 5, 12 | (e) 6, 9 | (f) 6, 12 |
| (g) 6, 15 | (h) 12, 8 | (i) 12, 9 |
| (j) 12, 20 | (k) 14, 6 | (l) 15, 9 |
| (m) 15, 20 | (n) 16, 10 | (o) 16, 36 |
| (p) 18, 9 | (q) 18, 24 | (r) 20, 25 |
| (s) 78, 56 | (t) 81, 225 | (u) 108, 132 |
| (v) 110, 231 | (w) 126, 195 | (x) 135, 120 |
| (y) 168, 248 | (z) 700, 82 | |

2. Find the LCM of each of the following sets of numbers.

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|------------------|-------------------|-------------------|
| (a) 8, 12, 18 | (b) 20, 32, 18 | (c) 24, 18, 36 |
| (d) 4, 8, 16, 20 | (e) 5, 12, 18, 20 | (f) 6, 12, 8, 18 |
| (g) 135, 175, 65 | (h) 140, 385, 220 | (i) 225, 105, 252 |

3. Find the (i) HCF, (ii) LCM and (iii) product of the HCF and the LCM for each of the following pairs of numbers

- | | |
|------------|-------------|
| (a) 7, 28 | (b) 12, 18 |
| (c) 12, 35 | (d) 96, 120 |

Find also the product of each of these pairs of numbers and compare the result with that in (iii). What do you notice?

- *4. The LCM of 6 and a certain number is 24. Find the number (If there is more than one answer, give the smallest number.)
- *5. The HCF of two numbers is 1 and the LCM of these numbers is 91. What are the numbers?

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Answers

Exercise 1.5 (p 15)

1. (a) 1 (b) 1 (c) 6
 (d) 1 (e) 3 (f) 3
 (g) 15 (h) 3 (i) 8
 (j) 9 (k) 1 (l) 1
 (m) 24 (n) 12 (o) 2
 (p) 18 (q) 9 (r) 6
 (s) 21 (t) 3 (u) 12
 (v) 12 (w) 12 (x) 33
 (y) 25 (z) 39

2. (a) 1 (b) 6 (c) 8
 (d) 35 (e) 1 (f) 1
 (g) 12 (h) 3 (i) 8

3. 12, 60

4. 8, 64; 16, 56; 32, 40

Exercise 1.6 (p 17)

1. (a) 34 (b) 15 (c) 36
 (d) 60 (e) 18 (f) 12
 (g) 30 (h) 24 (i) 36
 (j) 60 (k) 42 (l) 45
 (m) 60 (n) 80 (o) 144
 (p) 18 (q) 72 (r) 100
 (s) 2 184 (t) 2 025 (u) 1 188
 (v) 2 310 (w) 8 190 (x) 1 080
 (y) 5 208 (z) 28 700

2. (a) 72 (b) 1 440 (c) 72
 (d) 80 (e) 180 (f) 72
 (g) 61 425 (h) 1 540 (i) 6 300

3. (a) (i) 7 (ii) 28 (iii) 196
 (b) (i) 6 (ii) 36 (iii) 216
 (c) (i) 1 (ii) 420 (iii) 420

(d) (i) 24 (ii) 480 (iii) 11 520

The product of the HCF and LCM of each pair of numbers is equal to the product of the respective pair of numbers.

4. 8

5. 7, 13 or 1. 91