## EXERCISE 1A

**1.** Express the following numbers in words:
(a) 3013 (b) 4444 (c) 32108 (d) 60345
(e) 87650 (f) 100325 (g) 654019 (h) 3336669

**2.** Write the numeral for each of the following numbers:
(a) Nine thousand eighteen
(b) Fifty-four thousand seventy-three
(c) Three lakh two thousand five hundred six
(d) Twenty lakh ten thousand eight
(e) Six crore five lakh fifty-seven
(f) TWo crore two lakh two thousand two hundred two
(g) Twelve crore twelve lakh twelve thousand twelve
(h) Fifteen crore fifty lakh twenty thousand sixty-eight

**3.** Place commas correctly and write the numerals:
(a) Seventy three lakh seventy five thousand three hundred seven.
(b) Nine crore five lakh forty one.
(c) Seven crore fifty two lakh twenty one thousand three hundred two.
(d) Fifty eight million four hundred twenty three thousand two hundred two.
(e) Twenty three lakh thirty thousand ten.

**4.** Insert commas suitably and write the names according to Indian System of Numeration :
(a) 87595762 (b) 8546283 (c) 99900046

**5.** Insert commas suitably and write the names according to International System of Numeration :
(a) 78921092 (b) 7452283 (c) 99985102

**6.** Fill in the blanks.
(a) 1 million = ... lakh (b) 1 crore = ... million
(c) 1 lakh = ... thousand (d) 1 billion = ... lakh

**7.** Write each of the following numbers in expanded form:
(a) 15,768 (b) 3,08,927 (c) 24,05,609
(d) 5,36,18,493 (e) 6,06,06,006 (f) 9,10,10,510

**8.** Write the corresponding numeral for each of the following:
(a) 6 × 10000 + 2 × 1000 + 5 × 1 00 + 8 × 10 + 4 × 1
(b) 5 × 100000 + 8 × 10000 + 1 × 1000 + 6 × 100 + 2 × 10 + 3 × 1
(c) 2 × 10000000 + 5 × 100000 + 7 × 1000 + 9 × 100 + 5 × 1
(d) 3 × 1 000000 + 4 × 1 00000 + 6 × 1000 + 5 × 100 + 7 × 1

**9.** Fill in the blanks with '<' or '>':
(a) 1000 ☐ 999 (b) 4567 ☐ 1980
(c) 3298 ☐ 3412 (d) 93850 ☐ 93800
(e) 12345 ☐ 11999 (f) 99999 ☐ 111111
(g) 456789 ☐ 456123 (h) 198765 ☐ 198599
(i) 900123 ☐ 897654 (j) 100009 ☐ 100010
(k) 1003467 ☐ 987965 (l) 3572014 ☐ 10235401

**10.** Write the number coming just before the given number:
(a) 42678 (b) 998866 (c) 124680 (d) 9900000

**11.** Write the number coming just after the given number:
(a) 87654 (b) 668899 (c) 986421 (d) 9547999

**12.** Arrange the following numbers in ascending order:
(a) 9876, 8678, 999, 4567, 9, 1843
(b) 6666, 55555, 777, 88, 9, 90000
(c) 100000, 8, 94321, 98888, 546001, 11
(d) 450023, 9, 87615, 9867, 20, 448, 399
(e) 66633, 33, 8001, 200005, 7, 876
(f) 9873426, 24615019, 990357, 9874012, 24620010
(g) 56943201, 5694437, 56944000. 5695440, 56943300
(h) 700087, 8014257, 8015032, 10012458, 8014306
(i) 1020304, 893245, 980134, 1021403, 893425, 1020216

**13.** Arrange the following numbers in descending order:
(a) 1234, 2400, 4256, 976, 81, 6
(b) 3214, 65, 888, 9870, 10910, 3
(c) 67890, 80076, 88809, 765, 8, 3481
(d) 3333, 44444, 999, 77, 9, 80000
(e) 200000, 12349, 88889, 100645, 7, 89
(f) 63521047, 7354206, 63514759, 7355014, 102345680
(g) 5032786, 23794206, 5032790, 23756819, 987876
(h) 190909, 1808088, 16060666, 16007777, 181888, 1808090
(i) 199988, 1704382,200175, 1702497,201200, 1712040

**14.** Write all 3-digit numbers using 2, 3, 4. taking each digit only once.

**15.** Round each of the following numbers to the nearest ten:
(a) 35 (b) 86 (c) 173 (d) 3869 (e) 16378

**16.** Round each of the following numbers to the nearest hundred:
(a) 814 (b) 1254 (c) 43126 (d) 98165

**17.** Round each of the following numbers to the nearest thousand:
(a) 793 (b) 4826 (c) 16719 (d) 28394

**18.** Round each of the following numbers to the nearest ten thousand:
(a) 17514 (b) 26340 (c) 34890 (d) 272685

**19.** Estimate each sum to the nearest ten:
(a) 57 + 34 (b) 43 + 78 (c) 14 + 69
(d) 86 + 19 (e) 95 + 58 (f) 77 + 63
(g) 356 + 275 (h) 463 + 182 (i) 538 + 276

**20.** Estimate each sum to the nearest hundred:
(a) 236 + 689 (b) 458 + 324
(c) 170 + 395 (d) 3280 + 4395

(e) 5130 + 1410 (f) 10083 + 29380

**21.** Estimate each difference to the nearest ten:
(a) 53 - 18 (b) 97 - 38 (c) 409 - 148

**22.** Estimate each difference to the nearest hundred:
(a) 678 - 215 (b) 957 - 578
(c) 7258 - 2429 (d) 5612 - 3095

**23.** Estimate each difference to the nearest thousand:
(a) 35863 - 27677 (b) 47005 - 39488

**24.** Estimate each of the following products by rounding off each number to the nearest ten:
(a) 38 × 63 (b) 54 × 47 (c) 28 × 63
(d) 42 × 75 (e) 64 × 58 (f) 15 × 34

**25.** Estimate each of the following products by rounding off each number to the nearest hundred:
(a) 376 × 123 (b) 264 × 147 (c) 423 × 158
(d) 509 × 179 (e) 392 × 138 (f) 271 × 339

**26.** Estimate each of the following products by rounding off the first number upwards and the second number downwards:
(a) 183 × 154 (b) 267 × 146 (c) 359 × 76
(d) 472 × 158 (e) 680 × 164 (f) 255 × 350

**27.** Estimate each of the following products by rounding off the first number downwards and the second number upwards:
(a) 356 × 278 (b) 472 × 76 (c) 578 × 369

**28.** Find the estimated quotient for each of the following:
(a) 87 ÷ 28 (b) 83 ÷ 17 (c) 75 ÷ 23
(d) 193 ÷ 24 (e) 725 ÷ 23 (f) 275 ÷ 25
(g) 633 ÷ 33 (h) 729 ÷ 29 (i) 858 ÷ 39

**29.** Express each of the following as a Roman numeral:
(a) 8 (b) 14 (c) 29 (d) 36 (e) 43 (f) 54
(g) 61 (h) 73 (i) 81 (j) 95 (k) 99 (l) 105
(m) 114 (n) 164 (o) 195 (p) 226 (q) 341 (r) 475
(s) 596 (t) 611 (u) 520 (v) 621 (w) 759 (x) 819

**30.** Write each of the following as a Hindu-Arabic numeral:
(a) XXVII (b) XXXIV (c) XLV (d) LIV
(e) LXXIV (f) XCI (g) XCVI (h) CXI
(i) CLIV (j) CCXXIV (k) CCCLXV (l) CDXIV
(m) CDLXIV (n) DVI (o) DCCLXVI

**31.** Show that each of the following is meaningless. Give reason in each case.
(a) VC (b) IL (c) VVII (d) IXX

## EXERCISE 1B

**Arrange in columns and add:**

**1.** (a) 12129 + 24456 + 96543
(b) 34436 + 5 061 + 343 + 2
(c) 710109 + 94087 + 4354 + 76789 + 235

**2.** (a) 51321 and 43267
(b) 41212, 32123 and 5454
(c) 11211, 2122, 33133 and 523
(d) 644531 and 243245
(e) 1122, 34344, 31211 and 20001
(f) 50, 505, 5001 and 50102

**3.** (a) 654365 and 567567
(b) 8989898 and 9999999
(c) 444333, 556606 and 777888

**Add:**

**4.** (a) 23456 + 71241 (b) 34120 + 45230
(c) 62507 + 4092 (d) 40065 + 38713
(e) 87654 + 321 (f) 80704 + 3203

**5.** (a) 341125 + 124563 (b) 415306 + 372002
(c) 53724 + 612053

**6.** (a) 43265 + 12521 + 24012
(b) 63143 + 2512 + 1133
(c) 234567 + 42012 + 3220
(d) 24 + 241 + 2310 + 24302
(e) 123456 + 12332 + 1210 + 2001
(f) 5 + 51 + 510 + 87103

**7.** (a) 16975 + 64806 (b) 62402 + 24659
(c) 52876 + 58693 (d) 74251 + 3969
(e) 4875 + 92665 (f) 936 + 52186

**8.** (a) 265849 + 373246 (b) 527496 + 236540
(c) 43857 + 649763 (d) 300242 + 729734

**9.** (a) 23678 + 14972 + 55031
(b) 12345 + 54321 + 345678
(c) 468024 + 135791 + 56789
(d) 4567 + 34567 + 234567
(e) 56784 + 7654 + 456
(f) 24680 + 678901 + 213140

**10.** (a) 13579 + 24680 + 50321 + 11892
(b) 567897 + 43211 + 189458 + 219
(c) 66556 + 4446 + 336 + 26

**11.** (a) 456456 + 367890
(b) 1234567 + 8907865
(c) 77889908 + 7543217 + 85685685
(d) 4488997 + 3322115 + 5544332

**12.** (a) 11889966 + 5566787 + 95087654 + 32100645
(b) 7788665 + 2223334 + 5567890 + 6565656

**Arrange in columns and subtract:**

**13.** (a) 45554 - 32103 (b) 39876 - 18540
(c) 799967 - 543217 (d) 123456 - 112233

**14.** (a) 74321 - 35648 (b) 97654 - 38899
(c) 654321 - 66778 (d) 958822 - 9933

**15.** (a) Subtract 76765 from 94320.
(b) Subtract 464646 from 853420.

**Subtract**

**16.** (a) 8789 - 4506 (b) 99887 - 55443
(c) 66543 - 42310 (d) 4436 - 12345
(e) 61524 - 31312 (f) 95468 - 3125

**17.** (a) 678953 - 215432 (b) 554433 - 221103
(c) 789987 - 112283 (d) 654321 - 321211
(e) 876655 - 443322 (f) 653105 - 41004

**18.** (a) 97654 - 38799 (b) 55443 - 16744
(c) 67895 - 28996 (d) 78978 - 29989
(e) 34567 - 2089 (f) 10000 - 2345

**19.** (a) 545454 - 167895 (b) 666555 - 277896
(c) 607054 - 129765 (d) 330065 - 148978
(e) 100000 - 12345 (f) 226655 - 789

**20.** (a) 780605 - 391236 (b) 4321657 - 1432987
(c) 3322117 - 2424248 (d) 7895432 - 1689654

(e) 10060708 - 1278909 (f) 65656565 - 16768687

**21.** Fill in the blanks:
(a) 1235 + □ = 2000 (b) 51047 + □ = 100000
(c) □ + 792 = 10000 (d) □ + 9999 = 40000
(e) 22222 - □ = 5000 (f) □ - 1234 = 12345

**Simplify:**

**22.** (a) 8 - 2 + 3 (b) 7 + 3 - 5
(c) 15 + 12 - 14 (d) 81 + 87 - 69
(e) 182 - 97 + 49 (f) 248 - 132 - 15
(g) 289 - 195 + 234 (h) 527 + 419 - 497
(i) 1825 + 380 - 1567 (j) 1250 + 495 - 321 - 157
(k) 1089 - 197 - 47 + 1256
(l) 298 + 596 - 293 - 392
(m) 503 - 1437 - 246 + 1375 - 95
(n) 10000 - 999 + 8888 - 6665 + 777 - 555

**23.** (a) 656666 + 432141 - 765432
(b) 7899876 - 5898999 + 3213213
(c) 52345678 - 43216789 + 56565656
(d) 96596596 - 56432107 - 12340087

**Find:**

**24.** (a) 13 × 30 (b) 15 × 40 (c) 16 × 50 (d) 111 × 60
(e) 101 × 70 (f) 11 × 80 (g) 201 × 90 (h) 301 × 90

**25.** (a) 12 × 200 (b) 15 × 300 (c) 16 × 400
(d) 111 × 500 (e) 101 × 600 (f) 17 × 700
(g) 102 × 800 (h) 111 × 900 (i) 201 × 900

**26.** (a) 11 × 1000 (b) 12 × 2000 (c) 13 × 3000
(d) 14 × 4000 (e) 15 × 5000 (f) 16 × 6000
(g) 17 × 7000 (h) 12 × 8000 (i) 11 × 9000

**27.** (a) 76 × 100 (b) 132 × 1000 (c) 1234 × 10
(d) 36 × 20 (e) 124 × 200 (f) 102 × 400

**28.** (a) 22 × 13 (b) 34 × 12 (c) 33 × 13
(d) 56 × 11 (e) 63 × 11 (f) 99 × 11

**29.** (a) 102 × 33 (b) 123 × 13 (c) 213 × 13
(d) 412 × 12 (e) 506 × 11 (f) 1011 × 15
(g) 2013 × 13 (h) 3013 × 13 (i) 4004 × 12

**30.** (a) 14 × 28 (b) 26 × 13 (c) 37 × 35
(d) 43 × 51 (e) 54 × 63 (f) 98 × 77

**31.** (a) 456 × 34 (b) 543 × 61 (c) 637 × 72
(d) 897 × 82 (e) 985 × 79 (f) 999 × 99

**32.** (a) 141 × 21 (b) 324 × 22 (c) 567 × 11
(d) 321 × 312 (e) 432 × 221 (f) 332 × 323

**33.** (a) 134 × 202 (b) 313 × 103 (c) 657 × 101

**34.** (a) 1233 × 123 (b) 3321 × 332 (c) 4567 × 111

**35.** (a) 375 × 25 (b) 2408 × 79 (c) 1357 × 86

**36.** (a) 429 × 103 (b) 738 × 108 (c) 235 × 302

**37.** (a) 294 × 132 (b) 312 × 216 (c) 412 × 233

**38.** (a) 12 × 3 × 4 (b) 3 × 4 × 15 (c) 20 × 5 × 6 × 8

**39.** (a) 4132 × 27 (b) 6309 × 36 (c) 23008 × 95

**40.** (a) 3688 × 456 (b) 7089 × 789 (c) 60878 × 808

**41.** (a) 2308 × 8032 (b) 1234 × 4321
(c) 81009 × 8989 (d) 92002 × 23043

**42.** (a) 1478 × 5000 (b) 94 × 70000 (c) 79 × 12000

**43.** Multply:
(a) 1235 by 38 (b) 3167 by 74 (c) 4257 by 45
(d) 6389 by 69 (e) 2331 by 302 (f) 5678 by 101

**44.** Simplify:
(a) 4 × 5 - 3 × 2 (b) 8 × 2 - 4 × 3
(c) 7 × 8 - 6 × 4 + 5 × 3 (d) 10 × 5 - 12 × 7 + 8 × 9
(e) 9 × 7 - 5 × 9 - 4 × 3 (f) 18 × 5 - 8 × 7 - 6 × 2
(g) 11 × 10 + 3 × 5 - 15 × 8
(h) 15 × 8 + 10× 8 - 20 × 10
(i) 102 - 12 × 7 + 22 - 4 × 9
(j) 420 - 16 × 5 - 7 × 8 - 14 × 5

**Find:**

**45.** (a) 88 ÷ 11 (b) 91 ÷ 13 (c) 126 ÷ 15 (d) 144 ÷ 16

**46.** (a) 902 ÷ 11 (b) 975 ÷ 15 (c) 848 ÷ 16
(d) 588 ÷ 28 (e) 814 ÷ 37 (f) 686 ÷ 49

**47.** (a) 92053 ÷ 13 (b) 11948 ÷ 29 (c) 23138 ÷ 46
(d) 12084 ÷ 57 (e) 81162 ÷ 81 (f) 72000 ÷ 96

**48.** (a) 807 ÷ 26 (b) 737 ÷ 35 (c) 487 ÷ 44
(d) 608 ÷ 55 (e) 828 ÷ 75 (f) 969 ÷ 88

**49.** (a) 9559 ÷ 18 (b) 7309 ÷ 36 (c) 2078 ÷ 67
(d) 3319 ÷ 79 (e) 2700 ÷ 84 (f) 3670 ÷ 99

**50.** (a) 96009 ÷ 19 (b) 19877 ÷ 38 (c) 28090 ÷ 45

**Divide and verify the answer:**

**51.** (a) 8652 ÷ 12 (b) 7525 ÷ 35 (c) 9964 ÷ 47
(d) 1533 ÷ 73 (e) 7826 ÷ 86 (f) 2256 ÷ 94

**52.** (a) 85 ÷ 14 (b) 98 ÷ 16 (c) 95 ÷ 20
(d) 98 ÷ 24 (e) 89 ÷ 25 (f) 98 ÷ 30

**Find the quotient and the remainder.**

**53.** (a) 456 ÷ 10 (b) 2034 ÷ 10 (c) 98070 ÷ 10

**54.** (a) 9807 ÷ 100 (b) 50123 ÷ 100
(c) 436510 ÷ 100 (d) 5204400 ÷ 1000

**55.** (a) 3629 ÷ 1000 (b) 78096 ÷ 1000
(c) 123456 ÷ 1000 (d) 6003137 ÷ 1000

**56.** (a) 140 ÷ 20 (b) 270 ÷ 30 (c) 320 ÷ 40
(d) 200 ÷ 50 (e) 420 ÷ 60 (f) 560 ÷ 70
(g) 1760 ÷ 80 (h) 9810 ÷ 90 (i) 8400 ÷ 50

**57.** (a) 170 ÷ 20 (b) 280 ÷ 30 (c) 230 ÷ 40
(d) 440 ÷ 50 (e) 450 ÷ 60 (f) 500 ÷ 70
(g) 1780 ÷ 80 (h) 1840 ÷ 90

**58.** (a) 999 ÷ 111 (b) 861 ÷ 123 (c) 996 ÷ 249
(d) 616 ÷ 308 (e) 846 ÷ 423 (f) 898 ÷ 449

**59.** (a) 1668 ÷ 139 (b) 5564 ÷ 428 (c) 6666 ÷ 606
(d) 7777 ÷ 707 (e) 9708 ÷ 809 (f) 9977 ÷ 907

**60.** (a) 17952 ÷ 187 (b) 21361 ÷ 521 (c) 20979 ÷ 777

**61.** (a) 15920 ÷ 199 (b) 264240 ÷ 367
(c) 176820 ÷ 421 (d) 16777216 ÷ 4096

**62.** (a) 669 ÷ 167 (b) 820 ÷ 272 (c) 819 ÷ 409

**63.** (a) 7345 ÷ 612 (b) 9333 ÷ 717 (c) 8855 ÷ 805

**64.** (a) 74296 ÷ 123 (b) 81278 ÷ 789 (c) 85877 ÷ 423

**65.** (a) 78669 ÷ 67 (b) 841231 ÷ 38
(c) 618974 ÷ 56 (d) 1223456 ÷ 82
(e) 63143901 ÷ 44 (f) 12345006 ÷ 81

**66.** (a) 87212 ÷ 123 (b) 81376 ÷ 789
(c) 806873 ÷ 637 (d) 898420 ÷ 358
(e) 3158795 ÷ 441 (f) 3159569 ÷ 839

**67.** (a) 348043 ÷ 1324 (b) 5820635 ÷ 2875
(c) 27654321 ÷ 4831 (d) 610050029 ÷ 8012
(e) 333112 ÷ 2119 (f) 6880380 ÷ 8400

**68.** (a) 4256328 ÷ 1000 (b) 3604285 ÷ 10000
(c) 810563 ÷ 3000

**69.** Simplify:
(a) 16 ÷ 2 of 8 (b) 16 ÷ 2 × 8
(c) 16 of 4 ÷ 2 (d) 16 × 8 ÷ 4
(e) 20 ÷ 2 - 10 × 2 + 5 of 4 ÷ 5 + 20

(f) 25 ÷ 5 of 5 × 2 of 3 + 7 - 6
(g) 125 of 4 ÷ 10 of 5 - 9 of 7 + 160 ÷ 2
(h) 12 ÷ 4 of 3 ÷ 7 - 2 × 4
(i) 4900 ÷ 350 × 145
(j) 220 + 24 × 60 - 1089 ÷ 99
(k) 322 × 3773 ÷ 343 (l) 4875 ÷ 195 × 480
(m) 4900 ÷ 350 × 145
(n) 220 + 24 × of 60 - 1089 ÷ 99
(o) 3960 ÷ 264 + 5742 ÷ 522 × 30
(p) 3125 ÷ 125 - 2055 ÷ 411 - 20

**70.** Simplify the following:
(a) (16 + 12) - (2 × 6) (b) 84 ÷ (72 ÷ 6)
(c) (83 - 38) × 1 5 (d) (20 × 8) ÷ (10 of 4)
(e) 24 + 15 ÷ 3 × (4 - 2)
(f) (15 × 3) ÷ 5 × 8 - 2 + 6 × (8 - 2)

**71.** Simplify the following and verify whether they are equal.
(a) 12 × 6 ÷ 3 and 12 × (6 ÷ 3)
(b) (11 × 8) - 6 and 11 × (8 - 6)

**72.** Simplify the following:
(a) 5 × {19 - (15 - 6)} (b) 20 + {5 × (72 - 42)}
(c) 40 - {(17 - 3) ÷ (20 - 13)}
(d) (30 ÷ 10) + {(6 × 12) ÷ 8}
(e) {7 + (5 × 3)} - 12 + 6 of 3

## EXERCISE 1C

**1.** Write down all the factors of
(a) 23 (b) 18 (c) 24 (d) 27 (e) 36 (f) 60 (g) 75

**2.** Write the first five multiples of each of the following numbers:
(a) 5 (b) 8 (c) 9 (d) 17 (e) 23 (f) 65 (g) 70

**3.** Which of the following numbers are even and which are odd?
(a) 44 (b) 24 (c) 18 (d) 32 (e) 37 (f) 50
(g) 58 (h) 69 (i) 144 (j) 321 (k) 253 (l) 952

**4.** Find which of the following numbers are primes:
(a) 23 (b) 51 (c) 89 (d) 37 (e) 91 (f) 103
(g) 137 (h) 161 (i) 179 (j) 217 (k) 277 (l) 331

**5.** Which ofthe following numbers are divisible by 2?
(a) 11, 24, 30, 95, 99 (b) 100, 109, 427, 524
(c) 1346, 4235, 5002, 10100

**6.** Which ofthe following numbers are divisible by 10?
(a) 10, 15, 30, 48, 70
(b) 145, 1200, 470, 50, 505

**7.** Which of the following numbers are divisible by 5?
(a) 5, 6, 8, 9, 7 (b) 10, 22, 35, 60, 95

**8.** Which ofthe following numbers are dwisible by 3?
(a) 12, 17, 45, 96, 62 (b) 111, 320, 428, 732
(c) 1234, 3150, 5022, 8102

**9.** In each ofthe following, find the smallest number that should be added to the number to get a number disible by 5.
(a) 1456 (b) 43217 (c) 639210 (d) 900003

**10.** In each of the following, find the smallest number that should be subtracted from the number to get a number disible by 10.
(a) 1234 (b) 3060 (c) 45679 (d) 900093

**11.** Test the divisibility of the following numbers by 2,3,4,5,6,7,8,9,10,11,12,15:

| | | | | |
|---|---|---|---|---|
| 2650 | 69435 | 59628 | 789403 | 357986 |
| 733 | 367314 | 10038 | 20701 | 79124 |
| 524781 | 872645 | 618 | 2314 | 63712 |
| 35056 | 4965 | 23590 | 946126 | 810524 |
| 35208 | 2070 | 124684 | 723405 | 46523 |
| 71232 | 438750 | 934706 | 117 | 826 |
| 251780 | 872536 | 2345 | 6021 | 14126 |
| 25368 | 9364 | 2138 | 36792 | 901674 |
| 2358 | 3333 | 136976 | 1790184 | 98712 |
| 5790 | 647514 | 326999 | 63215 | 55555 |
| 4334 | 257106 | 83721 | 66311 | 137269 |
| 901351 | 129 | 4896 | 79968 | 8790322 |
| 123452 | 390 | 7825 | 90875 | 406839 |

**12.** Which of the following numbers are divisible by 2 but not by 4?
(a) 28 (b) 316 (c) 2456 (d) 9026 (e) 726352

**13.** Which each of the following numbers, replace * by the smallest number to make it divisible by 3:
(a) 27*4 (b) 53*46 (c) 8*711 (d) 62*35
(e) 234*17 (f) 6*1054 (g) *6724 (h) 4765*2

**14.** In each of the following numbers, replace * by the smallest number to make it divisible by 9:
(a) 65*5 (b) 2*135 (c) 6702* (d) 91*67
(e) 6678*1 (f) 835*86 (g) 987*2 (h) 64*514

**15.** In each of the following numbers, replace * by the smallest number to make it divisible by 11:
(a) 26*5 (b) 39*43 (c) 86*72 (d) 467*91
(e) 1723*4 (f) 9*8071 (g) 92*389 (h) 8*9484

**16.** Test the divisibility of:
(a) 10000001 by 11 (b) 19083625 by 11
(c) 2134563 by 9 (d) 10001001 by 3

**17.** Select the coprime numbers from the following pairs of numbers.
(a) 18 and 17 (b) 36 and 25 (c) 35 and 21

**18.** Find the common factors of :
(a) 20 and 28 (b) 15 and 25 (c) 35 and 50
(d) 56 and 120 (e) 4, 8 and 12 (f) 5, 15 and 25

**19.** Find first three common multiples of :
(a) 6 and 8 (b) 12 and 18

**20.** Which of the following numbers are co-prime?
(a) 18 and 35 (b) 15 and 37 (c) 30 and 415
(d) 17 and 68 (e) 216 and 215 (f) 81 and 16

**21.** Give the prime factorization of each of the following numbers:
(a) 12 (b) 18 (c) 48 (d) 56 (e) 90
(f) 136 (g) 252 (h) 420 (i) 637 (j) 945
(k) 1224 (l) 1323 (m) 8712 (n) 9317 (o) 1035
(p) 1197 (q) 4641 (r) 4335 (s) 2907 (t) 13915

**22.** Find, by inspection, the HCF ofthe following pairs of numbers:
(a) 2 and 4 (b) 4 and 6 (c) 3 and 12
(d) 6 and 9 (e) 8 and 12 (f) 10 and 15
(g) 16 and 24 (h) 18 and 27 (i) 30 and 40
(j) 22 and 33 (k) 11 and 15 (l) 13 and 8

**23.** Find the HCF by finding factors:

(a) 4 and 8 (b) 4 and 10 (c) 3 and 15
(d) 9 and 12 (e) 10 and 25 (f) 35 and 49
(g) 2, 4 and 8 (h) 4, 6 and 8 (i) 3, 6 and 9
(j) 6, 9 and 1 5 (k) 8, 12 and 16 (l) 18, 24 and 32

**Find the HCF by prime factorization:**

**37.** (a) 45 and 30 (b) 45 and 75 (c) 30 and 105
(d) 54 and 81 (e) 64 and 80 (f) 58 and 174
(g) 72 and 126 (h) 165 and 275 (i) 480 and 720

**38.** (a) 12, 36 and 48 (b) 25, 40 and 60
(c) 40, 48 and 72 (d) 56, 42 and 140
(e) 44, 121 and 132 (f) 128, 136 and 512

**39.** (a) 140 and 196 (b) 352 and 192
(c) 216 and 630 (d) 540, 315 and 360
(e) 216, 324 and 1350

**40.** (a) 170, 238 (b) 504, 980
(c) 72, 108, 180 (d) 84, 120, 138
(e) 106, 159, 371 (f) 272, 425
(g) 144, 252, 630 (h) 1197, 5320, 4389

Find the HCF, using the division method *(Using Euclid's division algorithm)*:

**41.** (a) 390 and 663 (b) 856 and 936
(c) 837 and 1134 (d) 504 and 5292
(e) 775 and 1800 (f) 1435 and 3535
(g) 7625 and 8175 (h) 1020 and 11594
(i) 5610 and 10465 (j) 12350 and 6845
(k) 10568 and 9247 (l) 3536 and 33150

**42.** (a) 256, 442 and 940 (b) 192, 576 and 1760
(c) 639, 873 and 747 (d) 612, 816 and 448
(e) 176, 1100 and 4444 (f) 808, 568 and 1112
(g) 432, 1134 and 1347 (h) 345, 726 and 531

**43.** (a) 1233, 726, 531 and 345
(b) 1326, 3094, 4420 and 5577

**44.** (a) 58, 70 (b) 399, 437
(c) 960, 1575 (d) 1045, 1520
(e) 1965, 2096 (f) 2241, 2324
(g) 658, 940, 1128 (h) 754, 1508, 1972
(i) 391, 425, 527 (j) 1794, 2346, 4761

**45.** Show that the following pairs are co-primes:
(a) 59, 97 (b) 161, 192 (c) 343, 432
(d) 512, 945 (e) 385, 621 (f) 847, 1014

**46.** Find, by inspection, the LCM of each pair of numbers:
(a) 2 and 4 (b) 3 and 6 (c) 4 and 8
(d) 6 and 12 (e) 5 and 10 (f) 9 and 3
(g) 20 and 10 (h) 6 and 10 (i) 6 and 16
(j) 12 and 16 (k) 10 and 15 (l) 12 and 18

**47.** Find, orally, the LCM of each group of numbers:
(a) 2, 3 and 4 (b) 4, 6 and 12 (c) 2, 6 and 8
(d) 4, 8 and 1 2 (e) 4, 12 and 18 (f) 2, 9 and 18
(g) 9, 12 and 18 (h) 8, 9 and 12 (i) 5, 10 and 15

**Find the LCM, using prime factorization:**

**48.** (a) 4 and 6 (b) 6 and 9 (c) 8 and 12
(d) 4 and 22 (e) 4 and 26 (f) 6 and 21
(g) 6 and 27 (h) 8 and 28 (i) 10 and 25
(j) 15 and 25 (k) 25 and 80 (l) 75 and 120

**49.** (a) 10, 12 and 36 (b) 21 ,63 and 105
(c) 45, 84 and 90 (d) 54, 60 and 90
(e) 13, 39 and 65 (f) 21, 27 and 189
(g) 45, 125 and 225 (h) 240, 320 and 360

**50.** (a) 25, 30 and 40 (b) 42, 36 and 21
(c) 26, 14 and 91 (d) 36, 60, 84 and 90

**51.** (a) 36, 60, 72 (b) 36, 40, 126
(c) 16, 28, 40, 77 (d) 28, 36, 45, 60
(e) 144, 180, 384 (f) 48, 64, 72, 96, 108

**Find the LCM of the numbers by division:**

**52.** (a) 21, 63 and 105 (b) 64, 96 and 112
(c) 12, 18 and 90 (d) 45, 35 and 21

**53.** (a) 15, 45, 125 and 225 (b) 44, 126, 198 and 280
(c) 4, 6, 8, 12, 18 and 90 (d) 12, 36, 16, 24 and 32
(e) 16, 90, 91, 280 and 455

**54.** Find the LCM of the numbers by finding their HCF:
(a) 110 and 88 (b) 420 and 360 (c) 204 and 255

**55.** Reduce each of the following fractions to the lowest terms:
(a) $\frac{161}{207}$ (b) $\frac{517}{799}$ (c) $\frac{296}{481}$ (d) $\frac{1095}{1168}$ (e) $\frac{368}{496}$

**56.** Find the HCF and LCM of
(a) 117, 221 (b) 234, 572 (c) 693, 1078
(d) 145, 232 (e) 861, 1353 (f) 2923, 3239
(g) 17, 23, 29 (h) 24, 36, 40 (i) 30, 72, 432

**57.** For each pair of numbers, verify that their product = (HCF × LCM).
(a) 87, 145 (b) 186, 403 (c) 490, 1155

**58.** Find the greatest number that will divide 24 and 36 without leaving a remainder.

**59.** Find the greatest number that will divide 22, 33 and 44 without leaving a remainder.

**60.** Find the greatest number that will divide 33 and 45 leaving a remainder 9 in each case.

**61.** What is the largest number that will divide 61, 33 and 75 leaving Sas remainder In each case?

**62.** Find the greatest number that will divide 39, 52 and 65 leaving remainders 3, 4 and 5 respectively.

**63.** Find the least number which when divided by 12 and 18, leaves no remainder.

**64.** Find the least number which is exactly divisible by each ofthe numbers 6, 15 and 18.

**65.** Find the least number which when divided by 15 and 25, leaves 1 as remainder in each case.

**66.** Find the least number which when divided by 18 and 12, leaves 5 as remainder in each case.

**67.** The product of two numbers is 48 and their HCF is 2. Find their LCM.

**68.** The product of two numbers is 875 and their HCF is 5. Find their LCM.

**69.** The product of two numbers is 108 and their LCM is 36. Find their HCF.

**70.** The product of two numbers is 216 and their LCM is 36. Find their HCF.

**71.** The HCF of two numbers is 3 and their LCM is 36. If one of the numbers is 12, find the other number.

**72.** The HCF of two numbers is 8 and their LCM is 96. If one of the numbers is 24, find the other number.