

Solution of Practice Set - 4

Checking the divisibility by 6.

(1) (a) 264 → divisible by 2 divisible by 3 divisible by 6
2+6+4=12 → 6
is divisible by 3. ✓
∴ 264 is " " 3. ✓

(b) 9216 ✓ $9+2+1+6=18$ ✓ 3 ✓

(c) 75574 ✓ $7+5+5+7+4=28$ ✗
not divisible by 3 ✗

(2) Checking the divisibility by 8.

(a) 6048 last 3 digits divisible by 8
0,4,8 $48/8$ ✓

(b) 69948 9,4,8 948 not divisible ✗
by 8

(c) 96968 9,6,8 ✓

(3) Checking the divisibility by 11. divisible by 11

(a) 62216 odd places digits: 6, 2, 6 even places digit: 2, 1 difference of sums: $(6+2+6) - (2+1) = 14 - 3 = 11$ ✓

(b) 766645 odd places digits: 6, 6, 5 even places digit: 4, 6, 7 difference of sums: $(6+6+5) - (4+6+7) = 17 - 17 = 0$ ✓

(c) 2838 odd places digits: 8, 8 even places digit: 2, 3 difference of sums: $(8+8) - (2+3) = 16 - 5 = 11$ ✓

(4) Checking the divisibility by 12.

(a) Divisible by 3 Divisible by 4 divisible by 12
 11556 $1+1+5+5+6 = 18$ ✓ (56) ✓ ✓

(b) 78780 $7+8+7+8+0 = 30$ ✓ ✓ ✓

(c) 7879188 $7+8+7+9+1+8+8 = 48$ ✓ ✓ ✓