6. Write two numbers which differ by 3 and whose product is 54.

Ans- 6 and 9 cause it differs from 3 and also $6 \times 9 = 54$.

7. Without making any actual division show that 7007 is divisible by 7.

ans- $7007 = 7000 + 7$

$= 7 \times [1000+1] = 7 \times 1001$

clearly, 7007 is divisible by 7

8. Without making any actual divison show that 2300023 is divisible by 23.

ans- $2300023 = 2300000 + 23$

$= 23 \times [100000 + 23] = 23 \times 100023$

clearly, 2300023 is divisible by 23.

9. Without making any actual division, show that each of the following is divisible by 11.

i) 11011

$= 11 \times [1000 + 11]$

$= 11 \times 1011$

clearly, 11011 is divisible by 11.

ii) 110011

ans- $11 \times [10000 + 11]$

$= 11 \times 10011$

clearly, 110011 is divisible by 11.

iii) 11000011

ans- $11 \times [1000000 + 11]$

$= 11 \times 1000011$

= clearly, 11000011 is divisible by 11.

10. Without actual division, Show that each of the following is divisible.

i) 1608

ans- $16 \times [100 + 8]$

$= 8 \times [200 + 8]$

$= 8 \times 208 = 1608$

Therefore 1608 is divisible by 8

ii) 56008

ans- $= 56 \times [1000 + 8]$

$= 8 \times [7000 + 8]$

$= 8 \times 7008 = 56008$

= Therefore, 56008 is divisible by 8

iii) 240008

ans= $24 \times [10,000 + 8]$

$= 8 \times [30,000 + 8]$

$= 8 \times 30,008 = 240008$

Therefore, 240008 is divisible by 8.