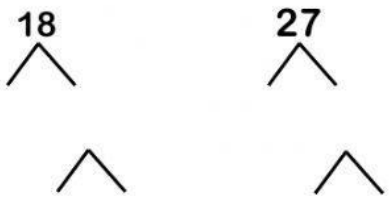
Name _____

Finding HCF and LCM Using Prime Factorization

- Find the HCF and LCM using prime factorization.
- For the factor tree and ladder method start with the smallest prime number that can be used.
- When listing prime factors, list the prime factors in ascending order.

A.



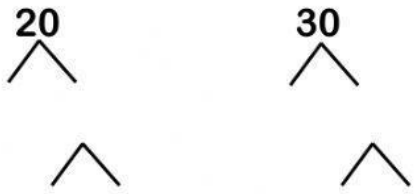
18: _____ x _____ x _____

27: _____ x _____ x _____

HCF: _____

LCM: _____

B.



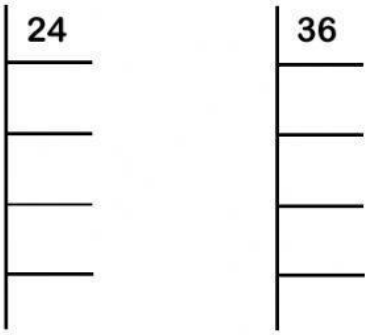
20: _____ x _____ x _____

30: _____ x _____ x _____

HCF: _____

LCM: _____

C.



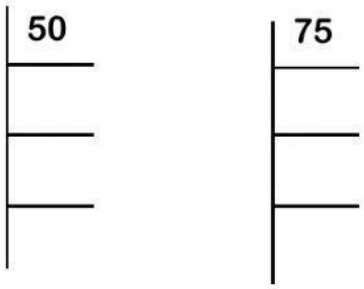
24: _____ x _____ x _____ x _____

36: _____ x _____ x _____ x _____

HCF: _____

LCM: _____

D.



50: _____ x _____ x _____

75: _____ x _____ x _____

HCF: _____

LCM: _____

The prime factorizations of certain numbers are given. Use the factors to find the HCF and LCM.

$28 = 2 \times 2 \times 7$

$42 = 2 \times 3 \times 7$

$70 = 2 \times 5 \times 7$

HCF: _____

LCM: _____

$36 = 2 \times 2 \times 3 \times 3$

$54 = 2 \times 3 \times 3 \times 3$

HCF: _____

LCM: _____

$180 = 2 \times 2 \times 3 \times 3 \times 5$

$120 = 2 \times 2 \times 2 \times 3 \times 5$

HCF: _____

LCM: _____