One, Some or None?

Students are to draw three cards at random and attempt to find three numbers (some) that meet all three criteria. If three numbers cannot be found that meet all three criteria, the student must explain why three numbers cannot be found.

Skills practiced:
Vocabulary, deduction, writing about math

Phrases:

An even number
An odd number

A prime number
A composite number

Has exactly 2 factors
Has exactly 3 factors
Has exactly 4 factors

Has more than 2 factors
Has more than 3 factors

Has at least 2 factors
Has at least 3 factors

Has less than 4 factors
Has less than 5 factors

Has 2 as a factor
Has 3 as a factor
Has 4 as a factor
Has 5 as a factor
Has 6 as a factor

A perfect square number

Is a divisor of 24
Is a divisor of 30
Is a divisor of 40
Is a divisor of 60
Is a divisor of 120

Is a multiple of 2
Is a multiple of 3
Is a multiple of 4
Is a multiple of 5
Is a multiple of 6
Is a multiple of 7

Has 2 factors in its prime factorization
Has 3 factors in its prime factorization

Adapted from M.T. in the M.S. March 2006 issue