

## GMAT Quant: What to Know

- First 6 Factorials:
  - $1! = 1$
  - $2! = 2$
  - $3! = 6$
  - $4! = 24$
  - $5! = 120$
  - $6! = 720$
- (Recognize as Prime) First 10 Prime Numbers
  - 2, 3, 5, 7, 11, 13, 17, 19, 23, 29
- Frequent Pythagorean Triples
  - [3,4,5] (and multiples)
  - [5,12,13]
  - [8,15,17]
- Special Right Triangles
  - 30/60/90 (sides are  $x$ ,  $x\sqrt{3}$ ,  $2x$ — look up online)
    - If hypotenuse = double 1 side, it is 30/60/90!
  - 45/45/90 (sides are  $x$ ,  $x$ ,  $x\sqrt{2}$ — look up online)
    - Remember, this also applies to squares!
    - Diagonal of square inscribed in circle is this and diameter of circle.
- Sets of Integers
  - Sum = mean \* # of integers
- Sets of Consecutive Integers
  - Mean = median
  - Mean is mean of top and bottom #s
  - Common forms are  $n^2 - 1$  and  $n^3 - n$
  - Odd # terms  $\rightarrow$  even range AND mean & sum are divisible by the # terms
- Common square roots:
  - $\sqrt{2} = 1.4$
  - $\sqrt{3} = 1.7$