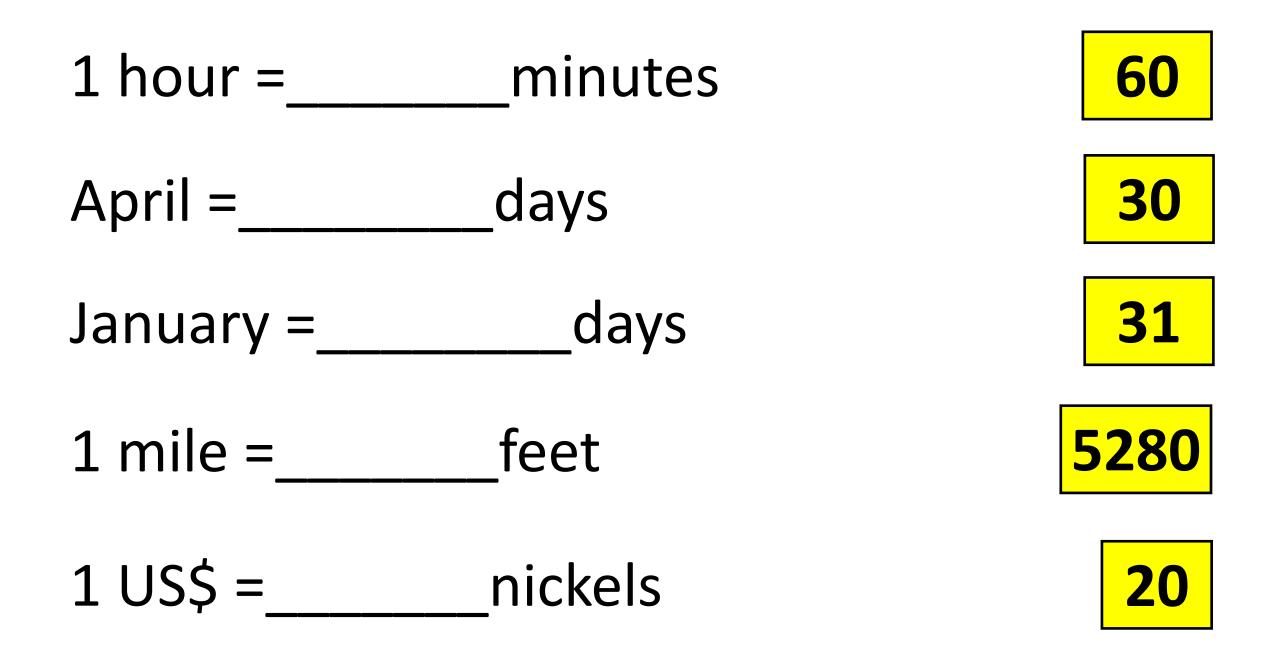
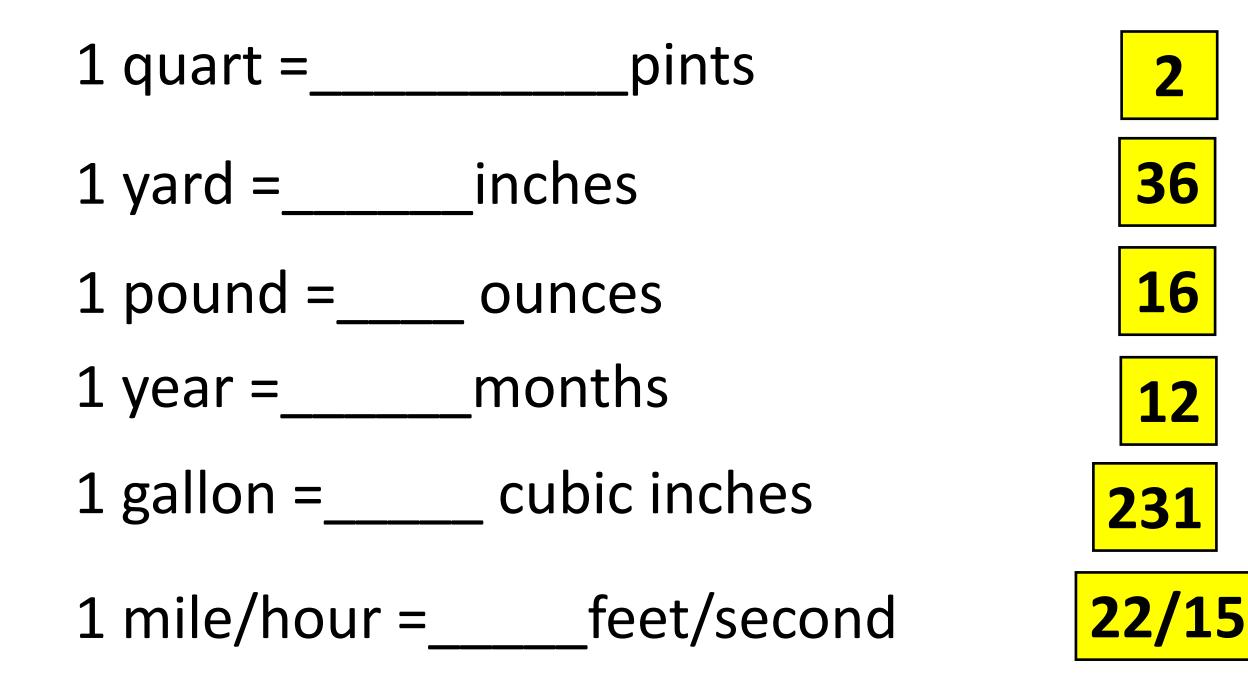
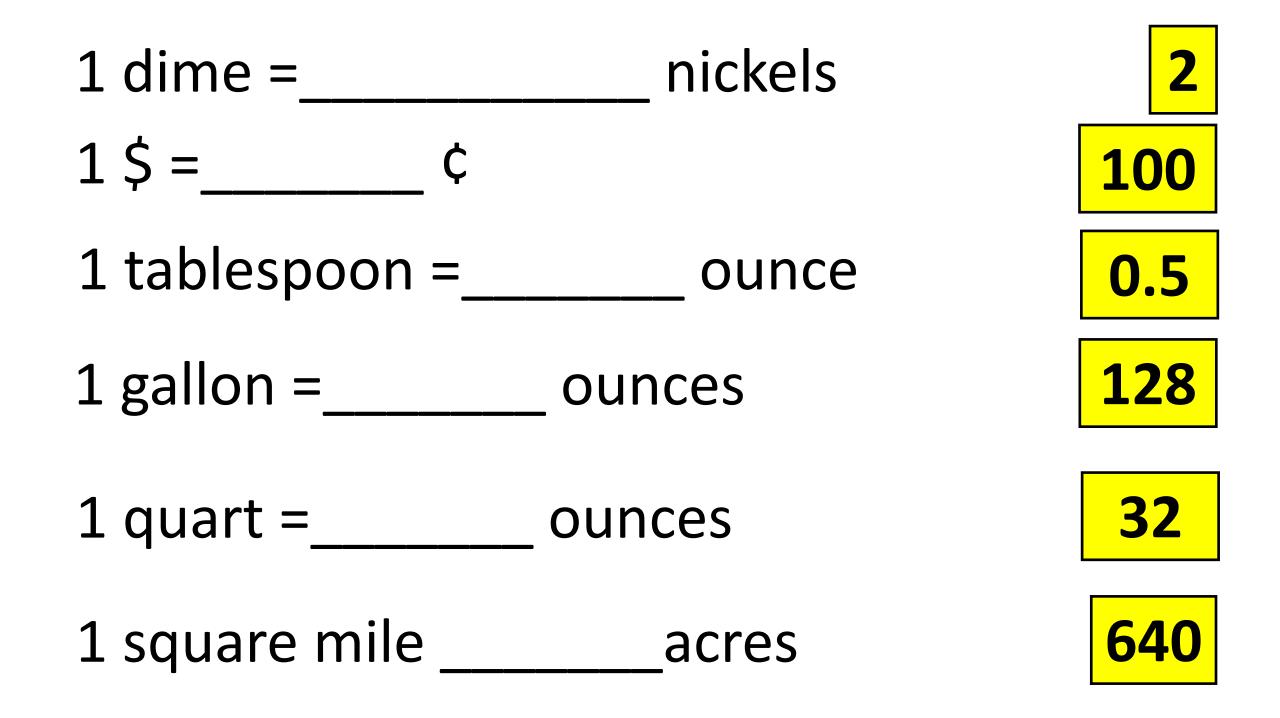
### Some Middle School Mathematics Facts & Problem Types To Know

Get Ready Get Set GO !





1 meter =	centimeters	100
1 inch =	centimeters	<b>2.54</b>
1 kilometer =	millimeters	<b>1,000,000</b>
1 mile =	yards	<b>1760</b>
1 cup =	_ounces	8
1 week =	days	7



#### Area of square formula

Area of circle formula



(side)<sup>2</sup>

Perimeter of scalene triangle formula

(side 1) + (side 2) + (side 3)

Circumference of circle formula

**π(diameter)** 

### Formula for finding N<sup>th</sup> triangular number **N(N + 1)/2**

Number of cards in a card deck

Formula for changing degrees Fahrenheit to

degrees Centigrade <sup>o</sup>C = (5/

°C = (5/9)(°F - 32)

52

Pythagorean Formula for Right Triangle

 $(\log 1)^{2} + (\log 2)^{2} = (hypotenuse)^{2}$ 

#### Formula for Sine of an angle

### (side opposite angle)/hypotenuse

Formula for Cosine of an angle

(side adjacent angle)/hypotenuse

Formula for Tangent of an angle

(side opposite angle)/(side adjacent angle)

Formula for perimeter of rhombus **4(side)** 

## Formula for area of triangle given base and height (1/2)(base)(height)

Formula for area of rhombus given both

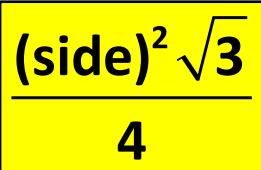
diagonals (1/2)(diagonal 1)(diagonal 2)

Formula for area of trapezoid given both parallel bases and altitude

(1/2)(base 1 + base 2)(altitude)

# Formula for perimeter of equilateral triangle **3(side)**

## Formula for area of equilateral triangle given side



# Formula for area of equilateral triangle given altitude $(side)^2 \sqrt{3}$

Total number of degrees in a triangle



Formula for area of isosceles triangle given

base and altitude

(1/2)(base)(altitude)

Formula for volume of sphere given radius



Formula for surface area of sphere given radius  $4\pi (radius)^2$ 

Formula for volume of right cylinder given radius and length  $\pi(radius)^2 \times (length)$ 

Formula for total surface area of right cylinder given radius and length

**2**π(radius)x(radius +

**length)** Formula for volume of cube

Formula for surface area of cube



Formula for volume of any right cone or pyramid given base area and altitude

 altitude

 3

Formula for diagonal of square given side  $(side)\sqrt{2}$ 

2(length + width)

Perimeter of rectangle formula

### Area of rectangle formula **(length)(width)**

Formula for perimeter of parallelogram

given adjacent sides

Formula for area of parallelogram given parallel sides and altitude **(side)(altitude)** 

Formula for perimeter of regular polygon with N sides (N)(side length) Formula for perimeter of square (side)

#### Simple Probability Formula

(# favorable outcomes)/(total # outcomes)

Simple odds Formula

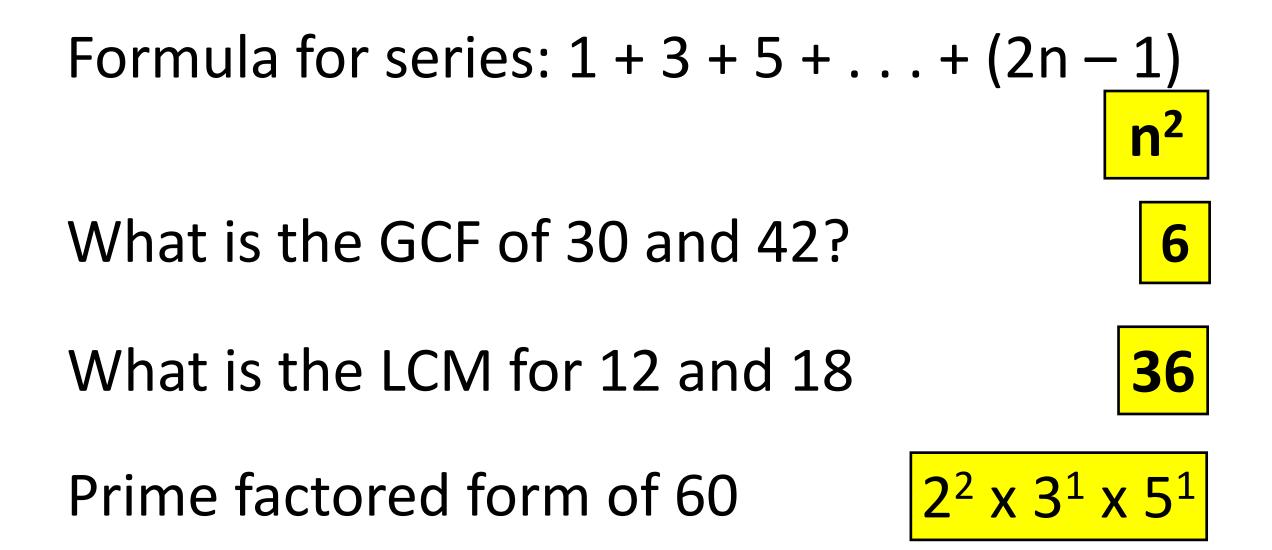
(# favorable outcomes)/(# unfavorable outcomes)

Formula for series: 2 + 4 + 6 + . . . + 2n

n(n + 1)

(n/2)(n + 1)

Formula for series: 1 + 2 + 3 + . . . + n



# elements in power set of {1, 2, a, b}

16

### # of smallest squares on a chess board **64** # of elements for {1, 2, 3, 4, 5} {2, 4, 5} **5** # of elements for {1, 2, 3, 4, 5} {2, 4, 5} **3** 18 % of 24 is % of 36 12 0.3666 . . . = fraction