

## Unit 7

### Geometry and Measurement 2 Dimensional

#### Definitions

- Polygon
- Flat 2-d Shape
- Quadrilateral
- 4 Sided figure

#### Types of Quadrilaterals

Parallelogram	• Opposite sides parallel & congruent
Rectangle	• Opposite sides parallel & congruent, 4 right angles
Rhombus	• All sides equal, opposite sides parallel
Square	• All sides and angles equal
Trapezoid	• 1 set of parallel sides
Kite	• 2 sets of opposite sides congruent

#### Triangles – based on angles

- Right Triangle • One  $90^\circ$  angle
- Acute Triangle • All angles measure less than  $90^\circ$
- Obtuse Triangle • Two angles measure less than  $90^\circ$  and one measures greater than  $90^\circ$

### Triangles – based on sides

Scalene Triangle • All sides are different lengths

Isosceles Triangle • 2 sides have the same length

Equilateral Triangle • All sides are equal

### Angles

Complementary Angles • Two angles whose sum is equal to 90°.

Supplementary Angles • Two angles whose sum is equal to 180°.

### Composite Figures

Definition A composite figure is a figure made up of several shapes.

Solving In order to solve for the area of a composite figure you must divide it into several other figures. Find an appropriate spot to divide and draw in lines. Then find the area of each figure and add them together

### Composite Figures

Example

Area of figure = 92

$$\begin{aligned} \textcircled{1} \quad A &= bh \\ &5.5(4) = 22 \\ \textcircled{2} \quad A &= \frac{1}{2}bh \quad \frac{1}{2}(4)(2) = 4 \\ \textcircled{3} \quad A &= bh \\ &4(4) = 24 \\ \textcircled{4} \quad A &= bh \\ &10(4) = 40 \end{aligned}$$

$$\begin{array}{r} 22 \\ 6 \\ 24 \\ + 40 \\ \hline 92 \end{array}$$