Level 2 Trigonometry Area and Geometry

Calculate the area of these triangles
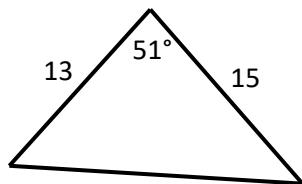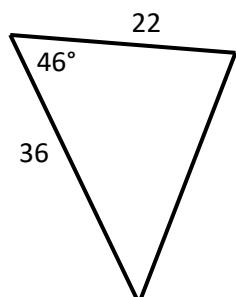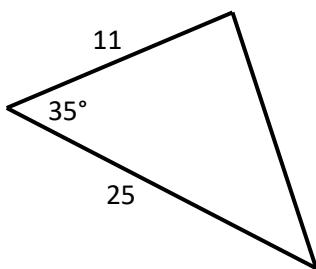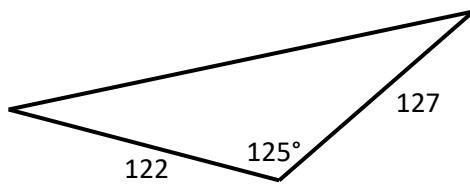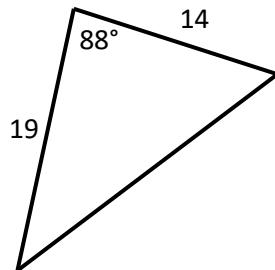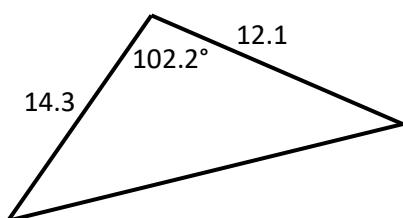
Use Geometry to find the unknown angles

1. A =

7. G° =

2. A =

8. h° =

3. A =

9. I° =

4. A =

10. J° =

5. A =

11. k° =

6. A =
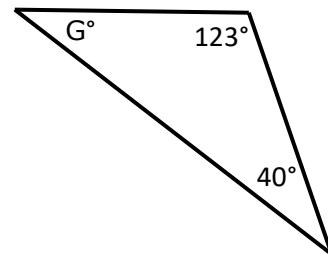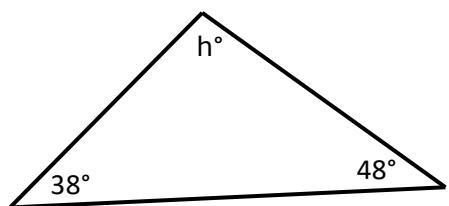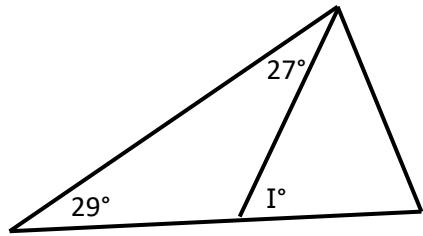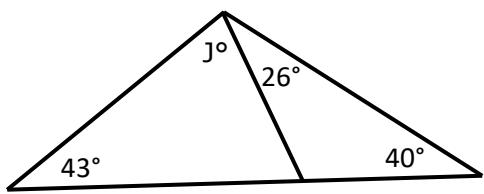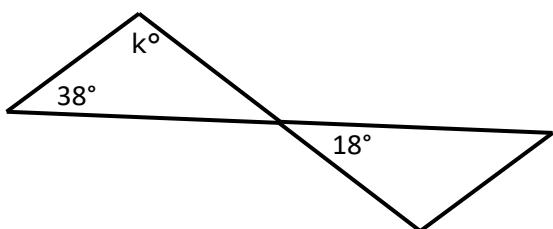
12. L° =
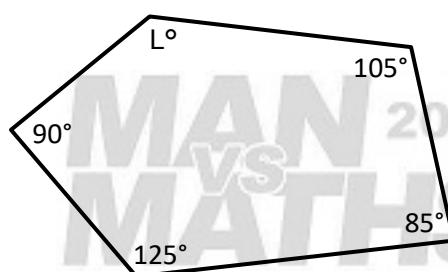
Answers: Level 2 Trigonometry Area and Geometry

1. $A = \frac{1}{2} \times 13 \times 15 \times \sin 51 = 75.77$

2. $A = \frac{1}{2} \times 36 \times 22 \times \sin 46 = 284.86$

3. $A = \frac{1}{2} \times 11 \times 25 \times \sin 35 = 78.87$

4. $A = \frac{1}{2} \times 122 \times 127 \times \sin 125 = 6345.97$

5. $A = \frac{1}{2} \times 14 \times 19 \times \sin 88 = 132.92$

6. $A = \frac{1}{2} \times 12.1 \times 14.3 \times \sin 102.2 = 84.56$

7. $G = 180 - 123 - 40 = 17°$

8. $h = 180 - 38 - 48 = 94°$

9.   Inside left triangle: $x = 180 - 29 - 27 = 124°$ On a line: $I = 180 - 124 = 56°$

10. $J = 180 - 26 - 40 - 43 = 71°$

     or   Inside right triangle: $x = 180 - 26 - 40 = 114°$
             On a line: $y = 180 - 114 = 66°$
             Inside left triangle: $J = 180 - 66 - 33 = 71°$

11. Vertically opposite are equal $k = 180 - 38 - 18 = 124°$

12. Sum of interior angles is (number sides – 2) × 180
             $(5 - 2) \times 180 = 540$
             $L = 540 - 105 - 85 - 125 - 90 = 135°$