

Trigonometry Problems

1. Find the perimeter of a regular pentagon inscribed in a circle of radius 24 cm.
2. A baseball diamond is actually a square with 90 foot sides. If the pitcher's mound is 60.5 ft from home plate, and is along the diagonal from 2nd to home, how far is the pitcher's mound from 1st base?

PreCalculus 11

- If the approximate distances from the Sun (S) to the Earth (E) and Venus (V) are 1.5×10^8 km and 1.1×10^8 km respectively, and angle VES is 28° , find the possible distances from Earth to Venus.
- The lengths of the diagonals of a parallelogram are 84 cm and 52 cm. If the diagonals intersect at an angle of 40° , how long are the sides of the parallelogram?

PreCalculus 11

5. A triangle has sides 8cm, 5cm and 11cm. Find the 3 angles by solving for the smallest first, then the largest second. (careful with the Sine Law !)
6. Is it possible to draw a triangle with sides 7cm, 8cm and 16cm? Explain.

PreCalculus 11

- The 3rd hole on a golf course is a 375 yd straight shot for a par 4. Jenny tees off and finds her shot has gone 22° to the left of a perfect shot. If she paces out 250 yds to her ball, how far is she away from the hole?
- Travelling from McBride to Jasper, you notice a mountain directly in front of you with an angle of elevation of 4° . After driving 20 km closer, the angle is now 9° . Find the approximate height of the mountain.