## CHAPTERS 1 AND 2 EXAM REVIEW

## TRIGONOMETRY

1. Find the length of the unknown leg in a triangle whose hypotenuse is 15.4 cm and one leg is 4.9 cm .
2. Determine the length of the unknown side in each triangle.
a.

b.

3. A ladder 10 ft . long is leaning against a wall at a $71^{\circ}$ angle.
a. How high up the wall does the ladder reach?
4. A ship's chief navigator is plotting the course for a tour of three islands. The first island is 12 miles due west of the second island. The third island is 18 miles due south of the second island.

What is the angle between the second and third island if you are standing on the first island?
5. A roof has the shape of an isosceles triangle. What is the measure of the angle of inclination of the roof?

6. Determine the sine, cosine and tangent ratios for each angle given. Give each answer to 4 decimal places.
a. $35^{\circ}$
b. $110^{\circ}$
7. Determine the angle given each ratio.
a. $\operatorname{Sin} A=0.765$
b. $\operatorname{Cos} Y=0.872$
8. Calculate the indicated in each triangle.
a. P. 29 Determine y
b. Determine $n$ p. 36
9. Calculate the indicated angle in each triangle.
a. ANGLE C

b. ANGLE D

10. Refer to \#9a triangle above and solve for side "b"
11. A surveyor in a canyon takes measurements and draws the diagram shown. Determine the length of the bridge that would stretch across the canyon. (2 marks)

Bridge


## MEASUREMENT

1. Determine the area and perimeter of the shape below:

2. Determine the volume of the barn.

3. Determine the area that needs to be painted if the roof and floor do not need painting.
4. For each of the following statements determine if they are true or false.
a) Given the perimeter of a rectangle, the rectangle with the maximum area would have a length that is 2 X the length of the width.
b) Given the area of a rectangle, the rectangle with the minimum perimeter is in the shape of a square.
c) Given the volume of a cylinder, the cylinder with the minimum surface area has a height that is equal to the diameter.
d) Given the surface area, the cylinder that has the maximum volume has a height that is the same as the radius.
e) Given the surface area of a rectangular prism, the rectangular prism with the maximum volume is a cube.
f) Given the volume of a rectangular prism, the rectangular prism with the minimum surface area has a length, width and height that are equal.
