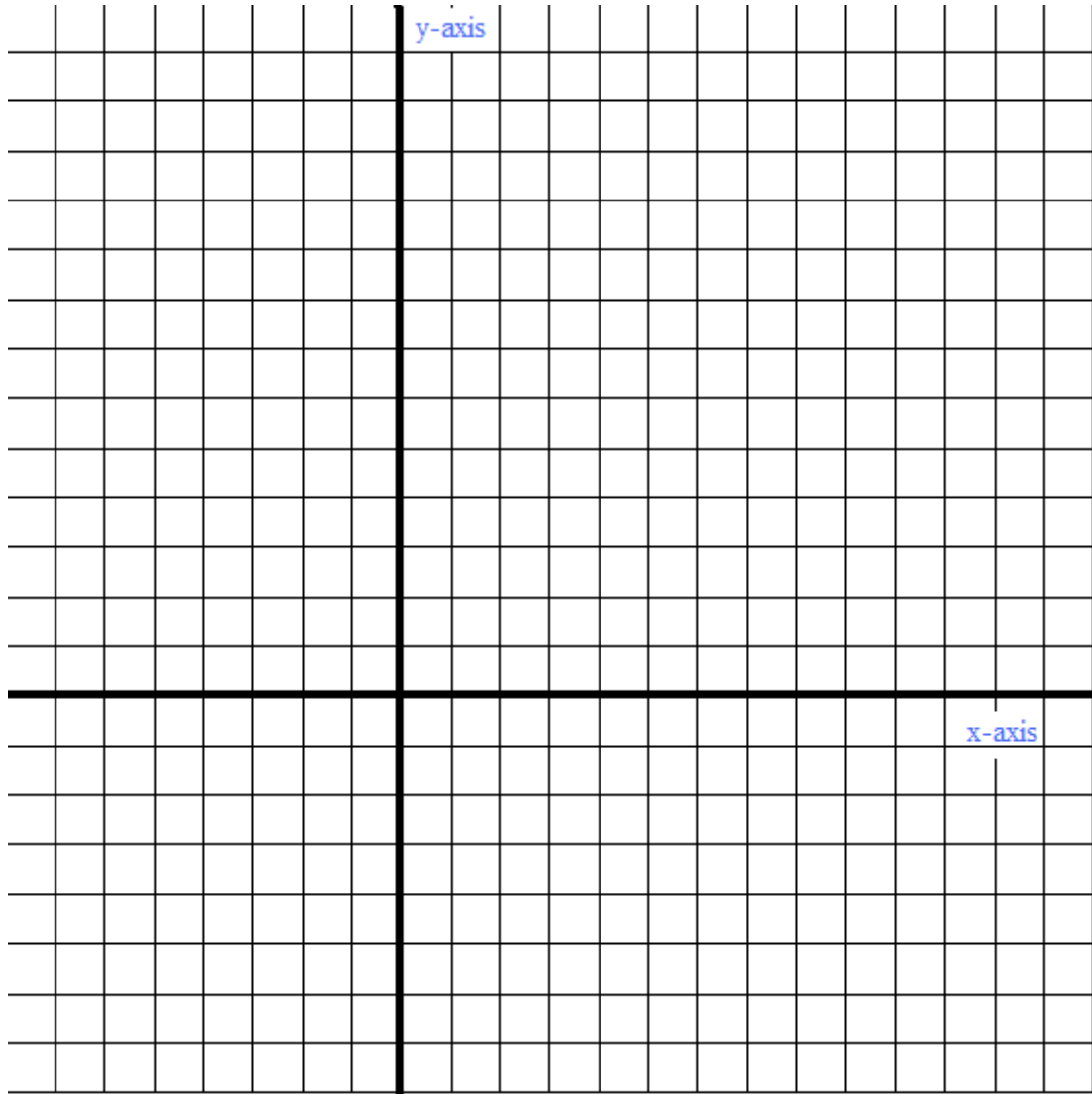# Cartesian Coordinate Cartoon

y-axis

x-axis

Note: each square is
1 unit x 1 unit

What does a mathematician use during winter vacation?
The (ski) slope

1) Draw line segment #1 from (12, 4) to the origin.

2) Construct a circle with center (-4, 1 ½) and diameter of 3 units

3) Construct another circle above it with center (-4, 4) and radius 1 unit

4) Draw a right triangle with base (12, 4) to (14, 4) and an altitude of 4 units.. The hypoteneuse has positive slope. (The triangle faces left.)

5) Fill in the right triangle.

6) Return to line segment #1... Darken the segment where 4 < x < 9

7) Draw angle abc where a = (5,2)   c = (7 ½ , 2 ½) & the vertex is (5, 5)

8) Draw another circle: center: (-4 , 5 ½).. diameter: 1 unit..

9) Draw line segment (-5, 4) to (-7, 5)... then, draw an identical segment **reflected over x = -4**

10) Draw an isosceles triangle with a base spanning (-3, 6) to (-5, 6) and the height of 1 unit
     Fill in that triangle.

11) Draw the following line segments: (4,7) to (5, 5);   (2, 7) to (7, 7); and, (4, 7) to (3 ½ , 8)

12) Draw an ellipse inscribed in the area 2 < x < 4 and   8 < y < 9