Handout 3: Stories Have Two Sides, Problems Have Four - Answers

1. Calculate the area of a trapezoid with bases 3 and 9 cm, and height 4 cm.
   24 cm^2

2. A square has side length equal to 2 feet. Find the area in square inches.
   576 in^2

3. What is the area of a parallelogram with height 3 mi and base 8 mi?
   24 mi^2

4. A rectangle has a diagonal of 25 inches. The length of the rectangle is 24 inches. Find the area.
   168 in^2

5. Find the area of a square with perimeter 36 m.
   81 m^2

6. Find the area of a rectangle with perimeter 36 m if one side is 11 m.
   77 m^2

7. A rectangle has perimeter 36 mm and area 80 mm^2. What are the lengths and widths of the rectangle?
   10 mm and 8 mm

8. The area of a kite is 64 cm^2. If one of the diagonals is twice the length of the other, what are the lengths of the diagonals?
   8 cm and 16 cm

9. A trapezoid has an area of 25 $units^2$. If one base is 10 units longer than the other and the height is half the length of the shorter base, what are the lengths of the bases of the trapezoid?
   5 units and 15 units

10. A parallelogram with sides 10 ft and 9.7 ft makes a 72° angle. What is the area of the parallelogram?
    92.3 ft^2
