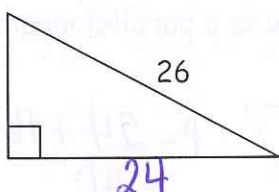
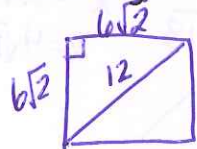
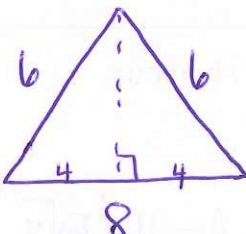
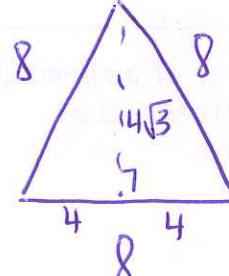
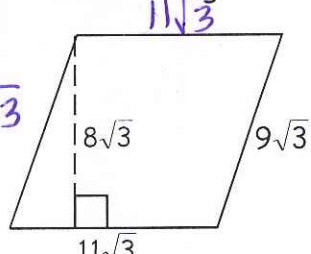
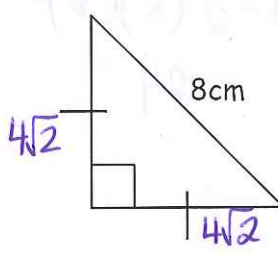
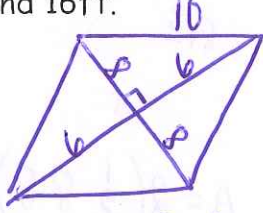
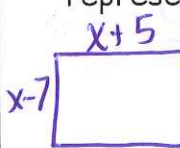


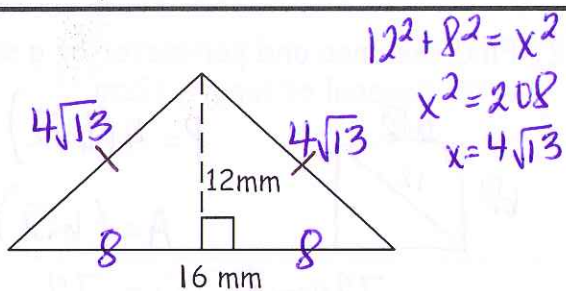
Directions: Find the area and perimeter of each triangle or parallelogram. Express your answers in simplified radical form.

<p>1) </p> $10^2 + x^2 = 26^2$ $x^2 = 576$ $x = 24$ $A = \frac{1}{2}(24)(10)$ $A = 120$ <p>Area = <u>120 u²</u> Perimeter = <u>60 units</u></p>	<p>2) Find the area and perimeter of a square with diagonal of length 12cm.</p>  $P = 4(6\sqrt{2})$ $A = (6\sqrt{2})(6\sqrt{2})$ $= 72$ <p>Area = <u>72 cm²</u> Perimeter = <u>24√2 cm</u></p>
<p>3) Find the area of an isosceles triangle with base 8in. and perimeter 20in.</p>  $4^2 + x^2 = 6^2$ $x^2 = 20$ $x = 2\sqrt{5}$ $A = \frac{1}{2}(8)(2\sqrt{5})$ $A = 8\sqrt{5} \text{ in}^2$	<p>4) Find the area of an equilateral triangle with perimeter 24m.</p>  $A = \frac{1}{2}(8)(4\sqrt{3})$ $A = 16\sqrt{3} \text{ m}^2$
<p>5) The below figure is a parallelogram.</p>  $P = 2(11\sqrt{3}) + 2(9\sqrt{3})$ $22\sqrt{3} + 18\sqrt{3}$ $A = (11\sqrt{3})(8\sqrt{3})$ $= 264$ <p>Area = <u>264 u²</u> Perimeter = <u>40√3 units</u></p>	<p>6) </p> $A = \frac{1}{2}(4\sqrt{2})(4\sqrt{2})$ $= \frac{1}{2} \cdot 32$ <p>Area = <u>16 cm²</u> Perimeter = <u>8 + 8√2 cm</u></p>
<p>7) A rhombus with diagonals of length 12ft. and 16ft.</p>  $P = 4(10)$ $= 40$ $A = \frac{1}{2}(12)(16)$ $= 96$ <p>Area = <u>96 ft.²</u> Perimeter = <u>40 ft.</u></p>	<p>8) The base of a rectangle is $x + 5$ and the height is $x - 7$. Write an expression to represent the area and perimeter.</p>  $P = 2(x+5) + 2(x-7)$ $2x+10+2x-14$ $P = 4x-4$ $A = (x+5)(x-7)$ $x^2 - 2x - 35$ <p>Area = <u>$x^2 - 2x - 35$</u> Perimeter = <u>$4x - 4$</u></p>

Geometry/Trig
11-2 Homework

Directions: Find the area and perimeter of each triangle or parallelogram. Express your answers in simplified radical or fractional form.

9)

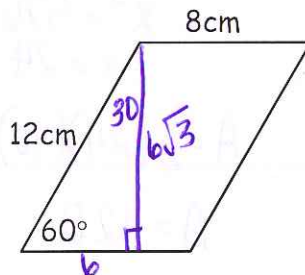


$$A = \frac{1}{2} (16)(12)$$

$$\text{Area} = \underline{96 \text{ mm}^2} = 96$$

$$\text{Perimeter} = \underline{16 + 8\sqrt{13} \text{ mm}}$$

10) The below figure is a parallelogram.



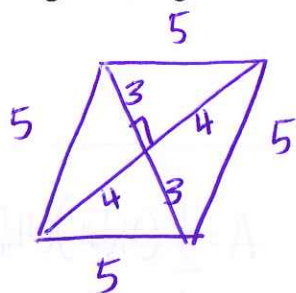
$$P = 24 + 16 = 40$$

$$A = (8)(6\sqrt{3}) = 48\sqrt{3}$$

$$\text{Area} = \underline{48\sqrt{3} \text{ cm}^2}$$

$$\text{Perimeter} = \underline{40 \text{ cm}}$$

11) Find the area and perimeter of a rhombus with a side length of 5 meters and a diagonal length of 8 meters.

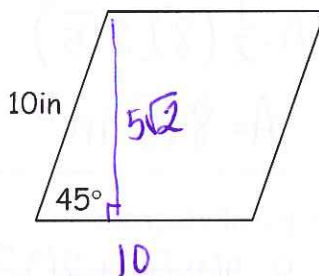


$$A = \frac{1}{2} (8)(6) = 24$$

$$\text{Area} = \underline{24 \text{ m}^2}$$

$$\text{Perimeter} = \underline{20 \text{ m}}$$

12) The below figure is a rhombus.

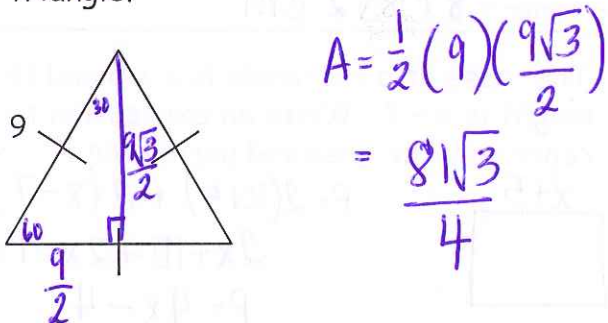


$$A = 10(5\sqrt{2}) = 50\sqrt{2}$$

$$\text{Area} = \underline{50\sqrt{2} \text{ in}^2}$$

$$\text{Perimeter} = \underline{40 \text{ in}}$$

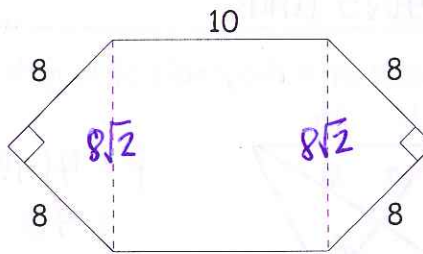
13) Find the area of the below equilateral triangle.



$$A = \frac{1}{2} (9)(\frac{9\sqrt{3}}{2}) = \frac{81\sqrt{3}}{4}$$

$$\text{Area} = \underline{\frac{81\sqrt{3}}{4} \text{ units}^2}$$

14) Find the area of the below irregular figure.



$$A = (8\sqrt{2})(10) = 80\sqrt{2}$$

$$A = 2(\frac{1}{2} \cdot 8 \cdot 8) = 64$$

$$\text{Area} = \underline{64 + 80\sqrt{2} \text{ u}^2}$$