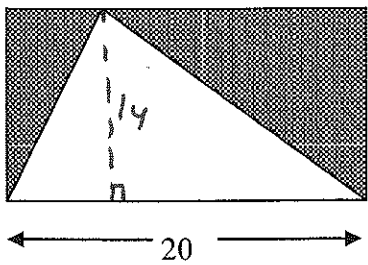


Example: (Find the area of the shaded portion of the figure)

The area of the shaded part would be:



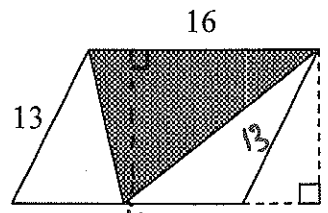
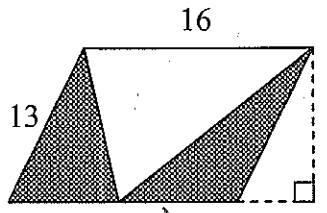
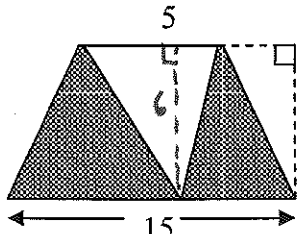
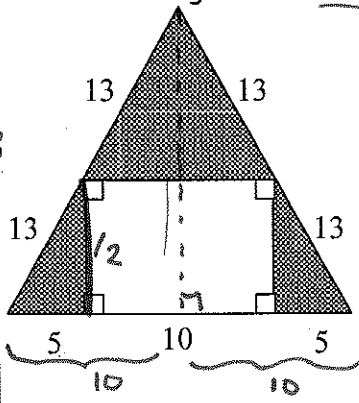
14

20

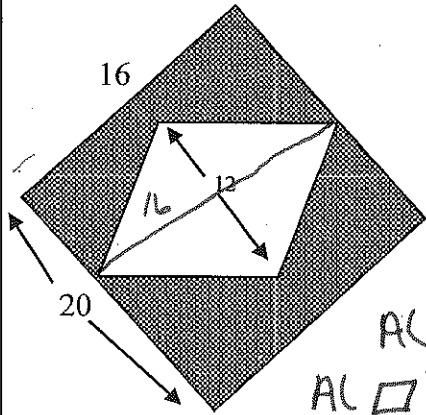
Rectangle - triangle
 (name of shape 1) (name of shape 2)
 bh - $\frac{bh}{2}$
 (form. for shape 1) (form. for shape 2)
 $20(14)$ - $\frac{20(14)}{2}$
 (sub in the numbers for each shape)
 280 - 140
 (Area of shape 1) (Area of shape 2)

Final answer: 140 units²

Now answer each of the following questions. Find the area of the shaded portion of each figure.

<p>1. The main figure is a parallelogram.</p>  <p>16</p> <p>13</p> <p>13</p> <p>$13^2 = 5^2 + x^2$ $12 = x$</p> <p>$A(\square) = 16(12) = 192$ $A(\triangle) = \frac{16(12)}{2} = 96$</p> <p>Final answer: <u>192 = 96 units²</u></p>	<p>2. Again, the main figure is a parallelogram.</p>  <p>16</p> <p>13</p> <p>$A(\square) = 192$ $A(\triangle) = 96$</p> <p>Final answer: <u>192 - 96 = 96 units²</u></p>
<p>3. The main figure is a trapezoid.</p>  <p>5</p> <p>6</p> <p>6</p> <p>15</p> <p>$A(\square) = \frac{(15+5)(6)}{2} = 60$ $A(\triangle) = \frac{5(6)}{2} = 15$</p> <p>Final answer: <u>60 - 15 = 45 units²</u></p>	<p>4. The main figure is an isosceles triangle.</p>  <p>13</p> <p>13</p> <p>13</p> <p>13</p> <p>5</p> <p>10</p> <p>5</p> <p>$A = \frac{(20)(24)}{2} = 240$</p> <p>$A(\square) = 10(12) = 120$</p> <p>Final answer: <u>240 - 120 = 120 units²</u></p>

5. The unshaded part is a rhombus.

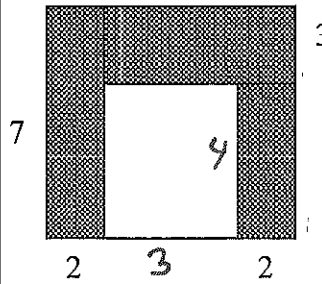


$$A(\square) = 20(16) = 320$$

$$A(\square) = \frac{1}{2}(12)(16) = 96$$

Final answer: $320 - 96 = 224 \text{ units}^2$

6. The main figure is a square.

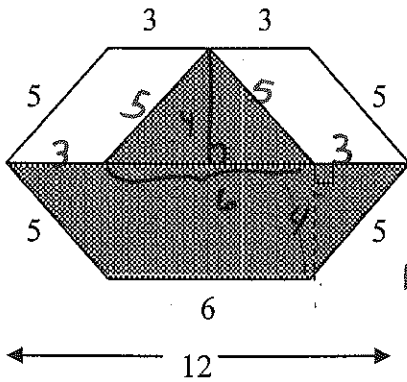


$$A(\square) = 7(7) = 49$$

$$A(\square) = 3(4) = 12$$

Final answer: $49 - 12 = 37 \text{ units}^2$

7. The top & bottom halves of the main fig. are \cong and the white figures are parallelograms.

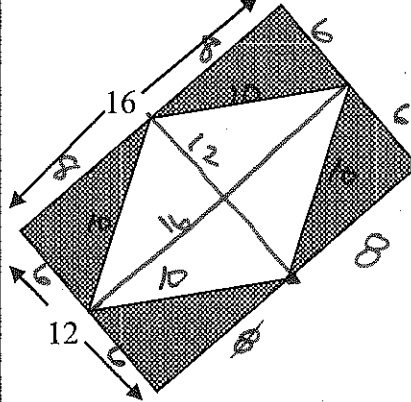


$$A(\square) = \frac{6(4)}{2} = 12$$

$$A(\square) = \frac{(12+6)4}{2} = 36$$

Final answer: $36 + 12 = 48 \text{ units}^2$

8. The main figure is a rectangle and its sides are bisected.

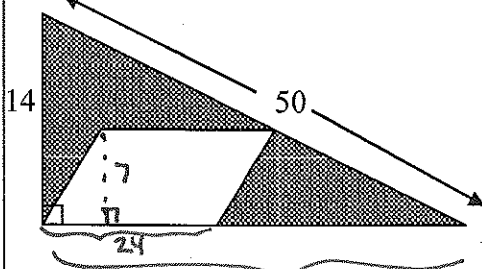


$$A(\square) = 12(16) = 192$$

$$A(\square) = \frac{1}{2}(12)(16) = 96$$

Final answer: $192 - 96 = 96 \text{ units}^2$

9. The unshaded part is a parallelogram and its base and height are half the lengths of the legs of the right triangle.

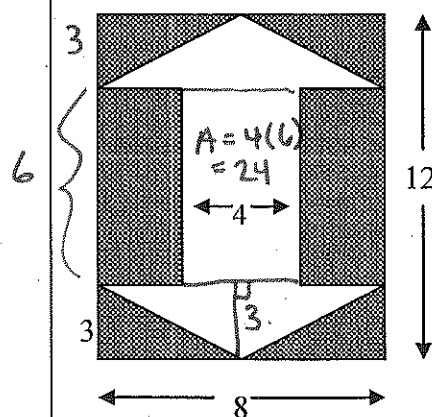


$$A(\triangle) = \frac{48(14)}{2} = 336$$

$$A(\square) = 24(7) = 168$$

Final answer: $336 - 168 = 168 \text{ units}^2$

10. The main figure is a rectangle and the figure inside is totally symmetrical.



$$A(\square) = 8(12) = 96$$

$$A(\triangle) = \frac{(8)(3)}{2} = 12$$

$$A(\triangle) = 12$$

Final answer: $96 - 24 - 12 - 12 = 48 \text{ units}^2$