1. \[ A = \frac{1}{2} bh \]
\[ = \frac{1}{2} (20)(33) \]
\[ = 330 \]
\[ A = \frac{1}{2} (16)(21) \]
\[ = 168 \]
\[ 330 + 168 = 498 \]

2. \[ A = \frac{1}{2} bh \]
\[ = \frac{1}{2} (82)(20) \]
\[ = 820 \]
\[ 2 \text{ congruent } \triangle \]
\[ 820 \times 2 = 1640 \]
3. \[ x = \sqrt{50} \]
\[ x^2 + x^2 = 10^2 \]
\[ 2x^2 = 100 \]
\[ x^2 = 50 \]
\[ x = \sqrt{50} \]
\[ \frac{1}{2} (150)(150) = 50 \div 2 \]
\[ = 25 \]

4. \[ A = lw \]
\[ 13.86 \times 24 \]
\[ = 332.64 \]
\[ \tan x \tan 60 = \frac{24}{x} \]
\[ \tan 60 \times 24 = 13.86 \]
\[ 332.55 \]
5. 

\[ A = \frac{1}{2} \text{abh} \]
\[ = \frac{1}{2} (60)(15) \]
\[ = 450 \]

\[ A = \frac{1}{2} (54)(21) \]
\[ = 567 \]

\[ 450 + 567 = 1017 \]

6. 

\[ A = \frac{1}{2} \text{abh} \]
\[ = \frac{1}{2} (28)(24) \]
\[ = 336 \]

\[ 336 \times 2 = 672 \]
7. The area of a triangle is 72 square inches. If the height is 8 inches, find the length of the base.

\[ A = \frac{1}{2}bh \]

\[ 72 = \frac{1}{2} b(8) \]

\[ \frac{72}{4} = \frac{4}{4} b \]

\[ 18 = b \]
8. A right triangle has a perimeter of 36 meters, a hypotenuse of 15 meters, and a leg of 9 meters. Find the area of the triangle.

\[ A = \frac{1}{2}bh \]
\[ = \frac{1}{2}(12)(9) \]
\[ = 54 \]
1. \[ A = \frac{1}{2} d_1 d_2 \]
\[ = \frac{1}{2} (40)(20) \]
\[ = 400 \]

2. \[
\cos 60 = \frac{x}{12} \]
\[ = 60 \times 2 = 12 \]

\[
\sin 60 = \frac{y}{12} \]
\[ y = 10.392 \]
\[ \times 2 \]
\[ \frac{x}{20.785} \]

\[ A = \frac{1}{2} d_1 d_2 \]
\[ \frac{1}{2} (12)(20.785) \]
median = \frac{1}{2} (b_1 + b_2)

A = \frac{1}{2} h (b_1 + b_2)

A = 32(16)

A = 512

A = \frac{1}{2} h (b_1 + b_2)

= \frac{1}{2} (16)(18 + 32)

= 8(50)

= 400
5. \[ A = \frac{1}{2} d_1 d_2 \]
\[ = \frac{1}{2} (26)(26) \]
\[ = 338 \]

6. \[ A = \frac{1}{2} h(b_1 + b_2) \]
\[ = \frac{1}{2} (28)(12 + 24) \]
\[ = \frac{1}{2} (28)(36) \]
\[ = .5 (28)(36) \]
\[ = 504 \]
7. The area of a trapezoid is 144 square inches. If the height is 12 inches, find the length of the median.

\[
A = \frac{1}{2} h (b_1 + b_2) \quad A = 144
\]

\[
\frac{144}{12} = \frac{12}{12} m
\]

\[
12 = m
\]
8. A rhombus has a perimeter of 80 meters and the length of one diagonal is 24 meters. Find the area of the rhombus.

\[ a = \frac{20}{a} \]

\[ a = \frac{12}{b} \]

\[ b = 16 \]

\[ a = \frac{16}{a} \]

\[ \frac{4a}{4} = \frac{80}{4} \]

\[ a = 20 \]

\[ 12^2 + b^2 = 20^2 \]

\[ 144 + b^2 = 400 \]

\[ b^2 = 256 \]

\[ b = 16 \]

\[ A = \frac{1}{2} d_1 d_2 \]

\[ = \frac{1}{2} (24)(32) \]

\[ = 384 \text{ m}^2 \]
1. \[ A = lw \]
   \[ = 15 \times 34 \]
   \[ = 510 \]

2. \[ A = \pi r^2 \]
   \[ A = 3.14 \times (7.5)^2 \]
   \[ A = 88.4 \]

\[ 510 + 88.4 = 598.4 \]
3. \[ A = \frac{1}{2} \times b \times h \]

\[ = \frac{1}{2} \times 14 \times 38 \]

\[ = 266 \]

\[ \frac{1}{2} \times (40 \times 10) \]

\[ = 200 \]

4. \[ 42 - 22 = 20 \]

\[ A = \frac{1}{2} \times 2a \times 20 \]

\[ = \frac{1}{2} \times (22 \times 20) \]

\[ = 220 \]

\[ 484 + 220 = 704 \]
5. \( A = \frac{1}{2} h (b_1 + b_2) \)
\[ = \frac{1}{2} (32) (40 + 20) \]
\[ = \frac{1}{2} (32) (60) \]
\[ = 960 \times 2 = 1920 \]

6. \( A = \frac{1}{2} b h \)
\[ = \frac{1}{2} (35)(7.5) \]
\[ = 131.25 \times \frac{2}{2} = 262.5 \]
7. Refer to Example 2 above. Draw the largest possible square inside each of the three circles. What is the total area of the three squares?

\[ A = s^2 \]
\[ = (\sqrt{150} \times \sqrt{150}) \]
\[ = 50 \times 3 = 150 \]

\[ 5^2 + 5^2 = c^2 \]
\[ 25 + 25 = c^2 \]
\[ \sqrt{50} = E^2 \]
\[ \sqrt{50} = c \]

\[ A = \frac{1}{2} d_1 d_2 \]
\[ = \frac{1}{2} (10)(10) \]
\[ = \frac{1}{2} (100) \]
\[ = 50 \times 3 = 150 \]
1. \[ A = \pi^2 \]
\[ = 20^2 \]
\[ = 20(20) \]
\[ = 400 \]

2. \[ 22^2 = 11^2 + b^2 \]
\[ a = 19.1 \]
\[ A = \frac{1}{2} (22)(22 + 38) \]
\[ = \frac{1}{2} (22)(60) \]
\[ = 660 \]
\[ 660 + 209.6 = 869.6 \]
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(8-10)
and
(16-18) all
3.

4.
One of the displays at a botanical garden is a koi pond with a walkway around it. The figure shows the dimensions of the pond and the walkway.

7. Find the area of the pond to the nearest tenth.

8. Find the area of the walkway to the nearest tenth.
Question...?
Question...?
median = \frac{1}{2} (b_1 + b_2)
\[\begin{align*}
A &= \frac{1}{2} h (b_1 + b_2) \\
A &= 32(16) \\
A &= 512
\end{align*}\]
Question...?

8. A rhombus has a perimeter of 80 meters and the length of one diagonal is 24 meters. Find the area of the rhombus.
Question...?

1. \[ A = lw \]
   \[ = 15(34) \]
   \[ = 510 \]

2. \[ A = \pi r^2 \]
   \[ = 3.14(7.5)^2 \]
   \[ = 176.7145 \approx 2 \]
   \[ A = 88.4 \]

\[ 510 + 88.4 = 598.4 \]