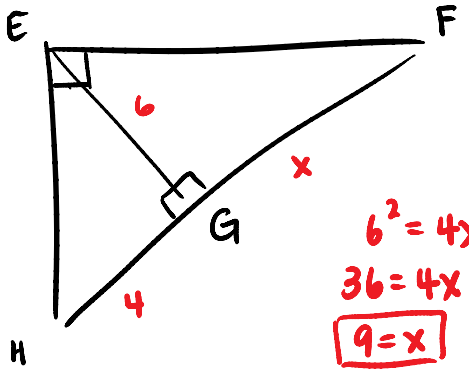
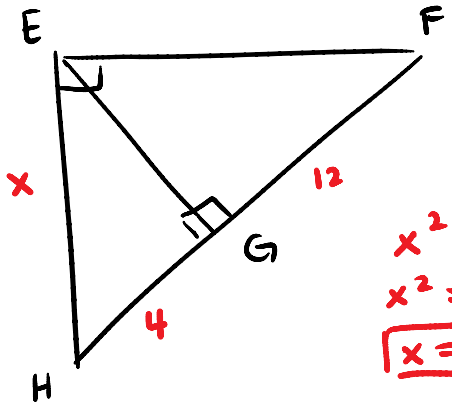
pgs. 429 - 433
#1 - 3, 14, 15, 23, 24, 26, 27, 28, 33

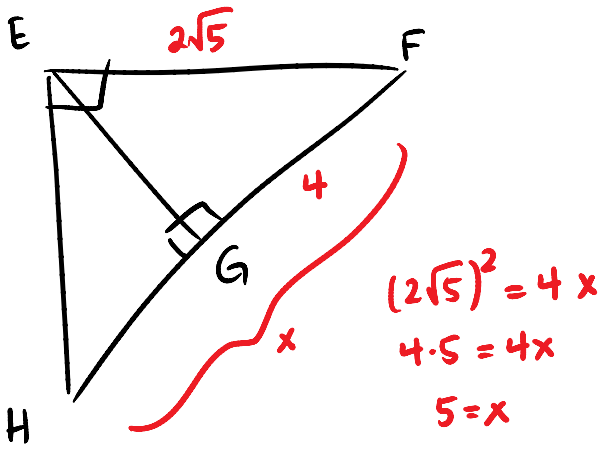
#1



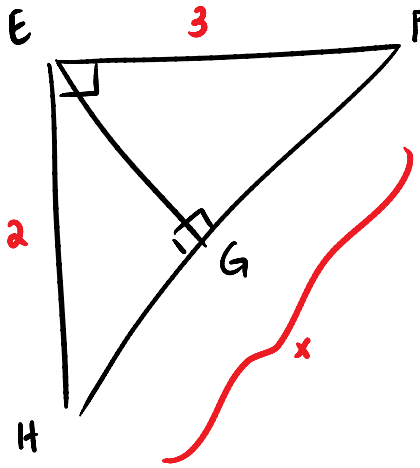
$6^2 = 4x$
$36 = 4x$
$\boxed{9 = x}$



$x^2 = 4 \cdot 16$
$x^2 = 64$
$\boxed{x = 8}$



$(2\sqrt{5})^2 = 4x$
$4 \cdot 5 = 4x$
$5 = x$

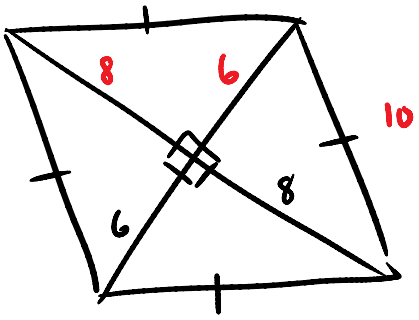


$2^2 + 3^2 = x^2$
$4 + 9 = x^2$
$\boxed{\sqrt{13} = x}$

#2
a. 30-60-90
b. 3, 4, 5
c. 5, 12, 13
d. 8, 15, 17
e. 45, 45, 90

#3
a. 30
b. $5\sqrt{3}$, 5
c. 7
d. 15
e. $4\sqrt{5}$
f. 9
g. $5\sqrt{3}$, $10\sqrt{3}$
h. $25/2$
i. 26
j. $4\sqrt{2}$, $4\sqrt{2}$

#4 If AE = 6 and BE = 8
what is the perimeter of the rhombus



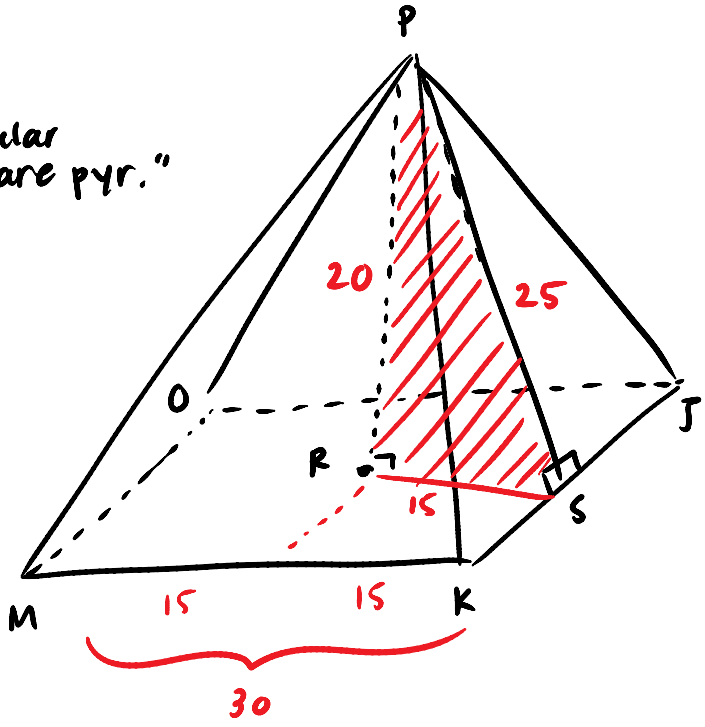
(3, 4, 5) x 2

P = 4(10) = **40**

#14 Given: PR = 20
PS = 25

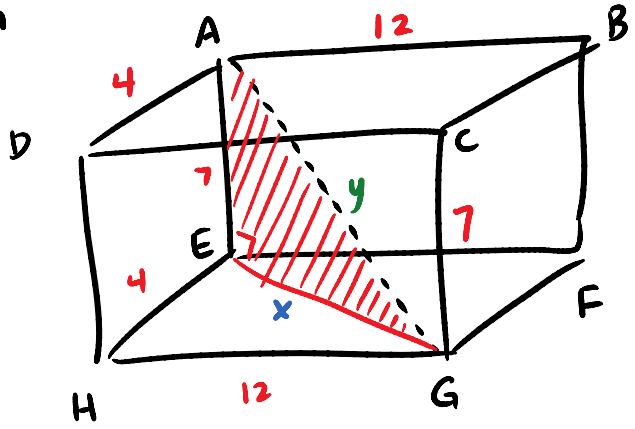
"Regular square pyr."

Find the perimeter of base



P = 30(4) = **120**

#15 Find AG to the nearest tenth
if DC = 12, CG = 7, AD = 4



$4^2 + 12^2 = x^2$

$1^2 + 3^2 = x^2$

$10 = x^2$

$4\sqrt{10} = x$

$(4\sqrt{10})^2 + 7^2 = y^2$

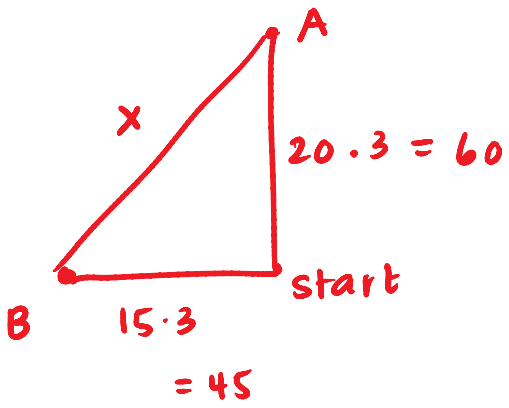
$16 \cdot 10 + 49 = y^2$

$160 + 49 = y^2$

$209 = y^2$

$y \approx 14.5$

#23 Two Boats leave the harbor at 9 a.m. Boat A sails north at 20 km/hr Boat B sails west at 15 km/hr. How far apart are the two boats at noon.



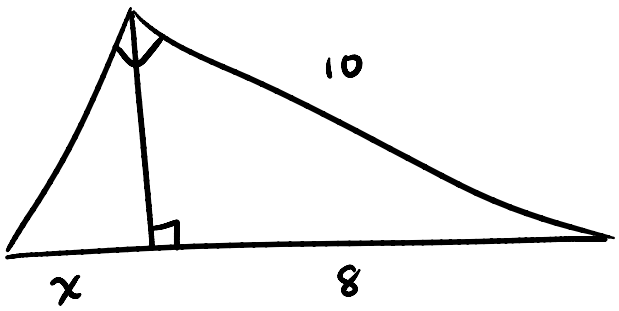
$60^2 + 45^2 = x^2$

$4^2 + 3^2 = x^2$

$5 = x$

$5(15) =$ **75 km**

#24 a. Find x



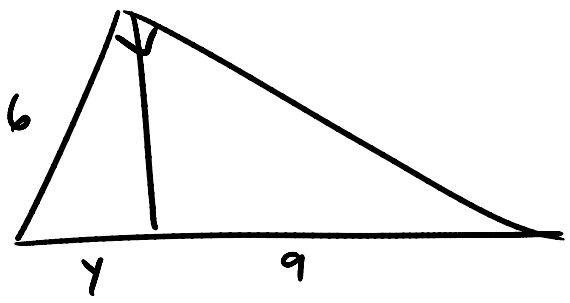
$10^2 = 8(8+x)$

$100 = 64 + 8x$

$36 = 8x$

$4.5 = x$

b. Find y



$6^2 = y(y+9)$

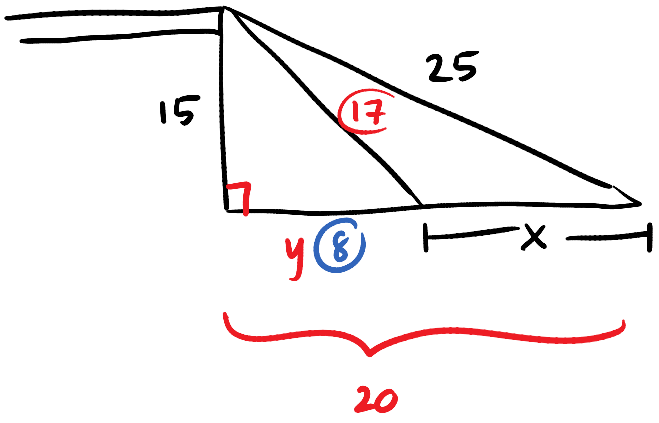
$36 = y^2 + 9y$

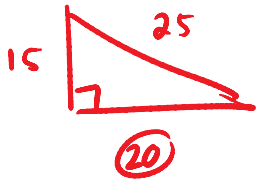
$0 = y^2 + 9y - 36$

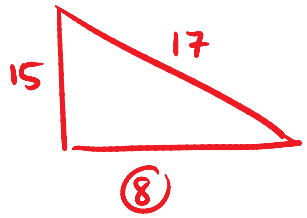
$0 = (y-3)(y+12)$

$y = 3, -12$

#26

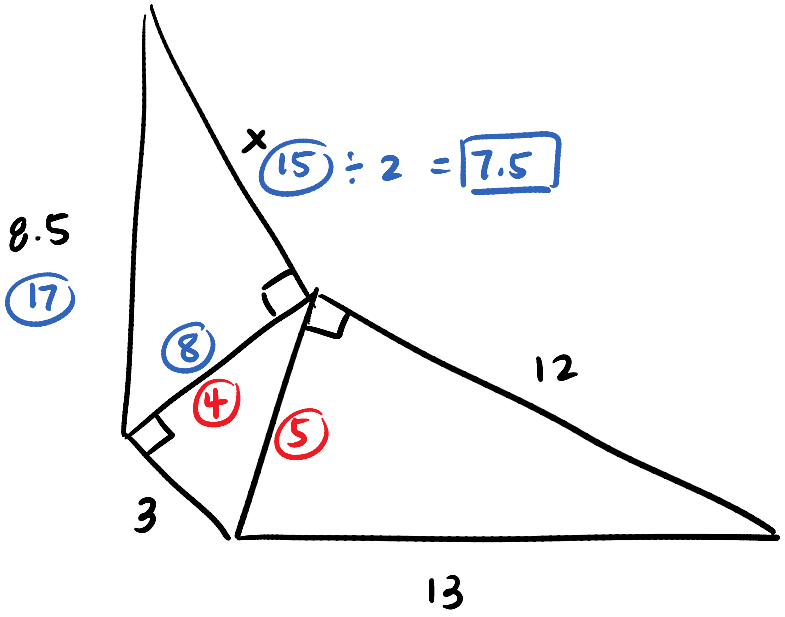




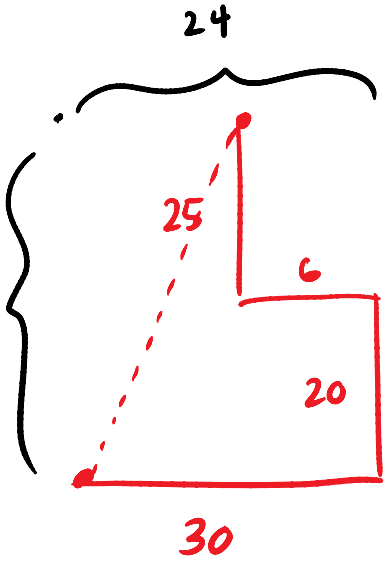


$x = 20 - 8 = \boxed{12\text{ ft}}$

#27



#28

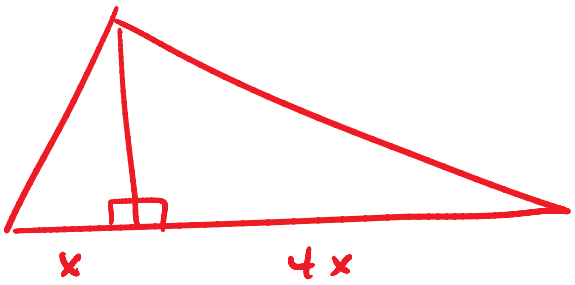


$45^2 + 24^2 = x^2$

$15^2 + 8^2 = x^2$

$17 = x$

$\times 3$

$\boxed{51\text{ paces}}$

#33 The altitude to the hypotenuse of a right Δ divides the hypotenuse in a ratio 4:1. What is the ratio of the legs of the triangle