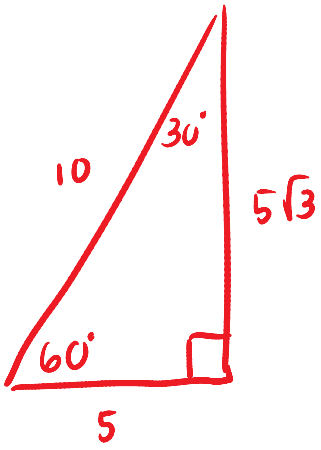
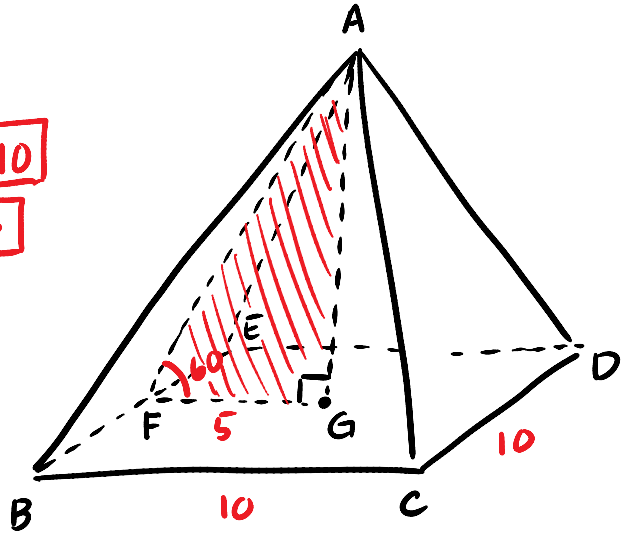
Sec 9.8
pgs. 414 - 417
#3 - 5, 14, 16, 18, 20

#3

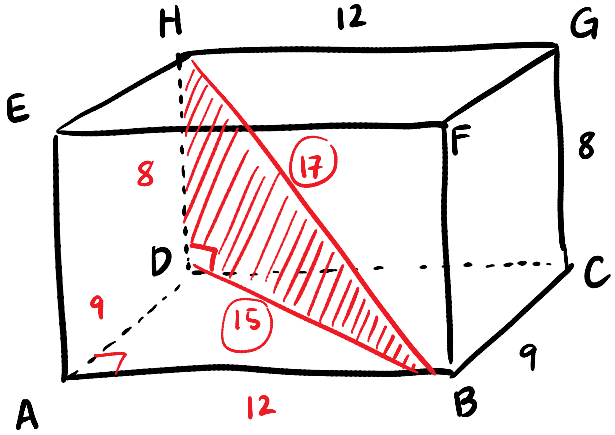


slant height: 10
altitude: 5√3



#4

a. HB = 17
b. AG = 17



#5

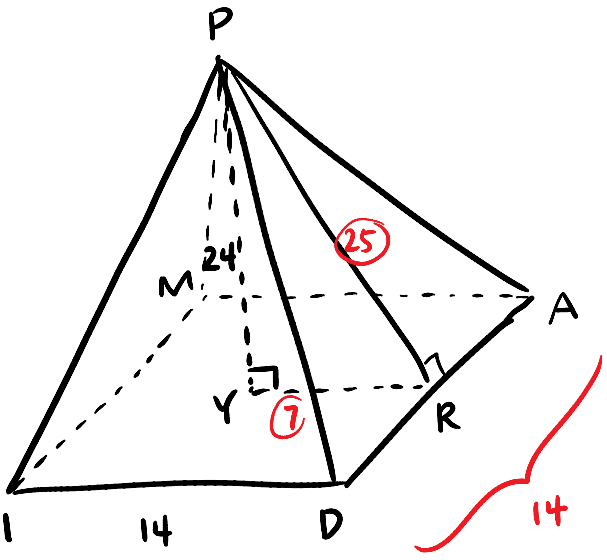
a. AD 14

b. YR 7

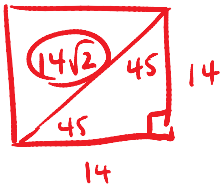
c. PR 25

d. The perimeter of base AMID 56

e. The diagonal of the base 14√2



BASE



#14

a. ID = 12

b. alt = 8

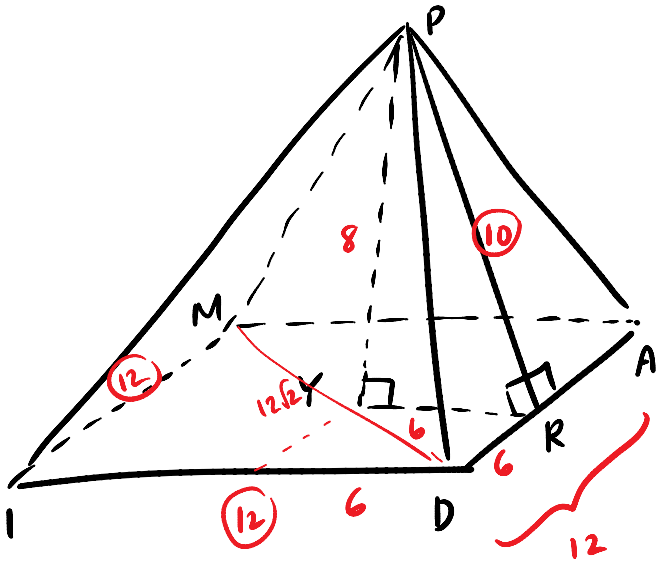
c. RD = 6

d. $6^2+10^2=x^2$ $\boxed{2\sqrt{34}}$

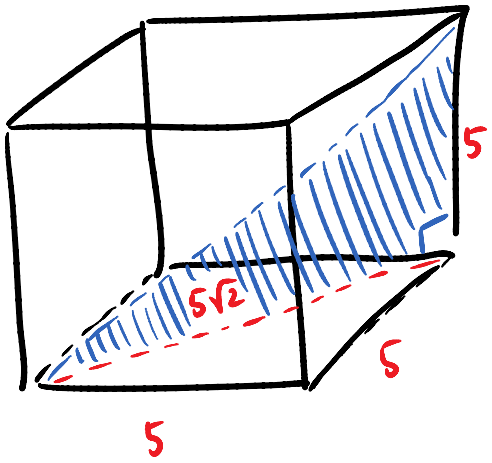
$3^2+5^2=x^2$

$\sqrt{34}=\sqrt{x^2}$

$\sqrt{34}=x$



#16



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

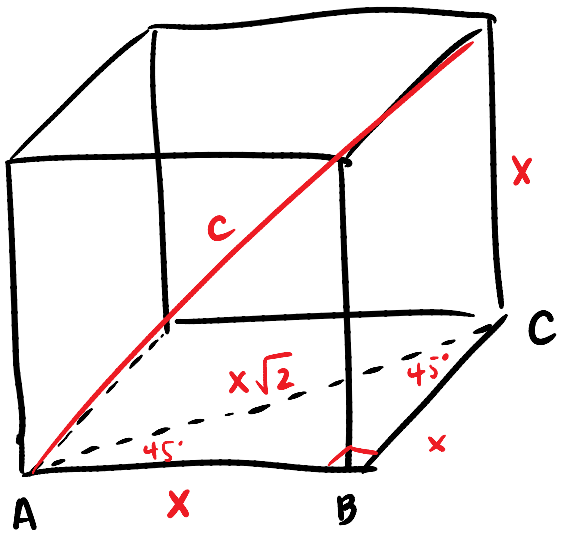
$25+50=x^2$

$75=x^2$

$\sqrt{25\cdot 3}=x$

$\boxed{5\sqrt{3}=x}$

#18



Find the diagonal if

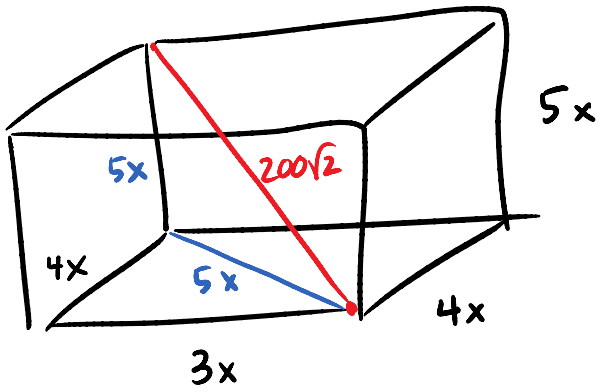
AB $x^2+(x\sqrt{2})^2=c^2$

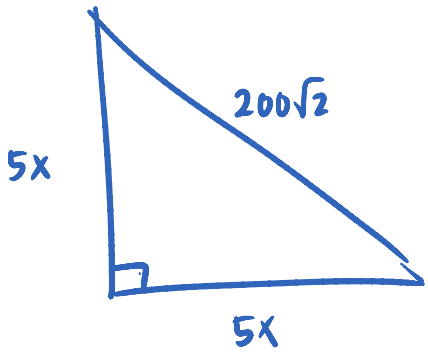
$x^2+2x^2=c^2$

$\sqrt{3x^2}=\sqrt{c^2}$

$x\sqrt{3}=c$

#20 The dimensions of a rectangular solid are in a ratio of 3:4:5. If the diagonal is $200\sqrt{2}$, find the 3 dimensions





Dimensions: (120, 160, 200)

$(5x)^2 + (5x)^2 = (200\sqrt{2})^2$

$25x^2 + 25x^2 = 40000 \cdot 2$

$50x^2 = 80{,}000$

$x^2 = 1600$

$\boxed{x = 40}$