5. 

**Given:** Regular square pyramid PAMID with slant height PR, altitude PY
ID = 14
PY = 24

**Find:**

a. AD  
b. YR  
c. PR  
d. The perimeter of base AMID  
e. A diagonal of the base (not shown)

6. 

Find the slant height of a regular square pyramid if the altitude is 12 and one of the sides of the square base is 10.
13. 

ABCDEFGH is a rectangular solid.

a. If face diagonal \( CH \) measures 17, edge \( GH \) measures 8, and edge \( FG \) measures 6, how long is diagonal \( AG \)?

b. If diagonal \( AG \) measures 50, edge \( AE \) measures 40, and edge \( EF \) measures 3, how long is edge \( FG \)?

14. 

PADIM is a regular square pyramid. Slant height \( PR \) measures 10, and the base diagonals measure \( 12/\sqrt{2} \).

a. Find ID

b. Find the altitude of the pyramid

c. Find RD

d. Find PD (length of a lateral edge)
17. The perimeter of the base of a regular square pyramid is 24. If the slant height is 5, find the altitude.

18. In the cube, find the measure of the diagonal in terms of $x$ if:

   a. $AB = x$

   b. $AC = x$
19. Find a formula for the length of a diagonal of a rectangular solid (use a, b, and c for the three dimensions)