Name:_____   **Date:**_____

Math 8 HW Section 8.3 – Surface Areas of 3D Solids
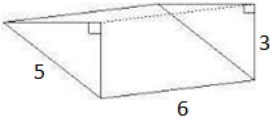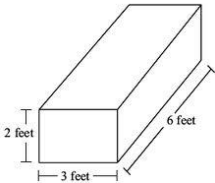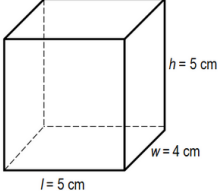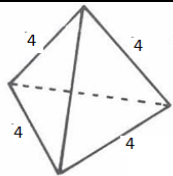
1. Calculate the surface area of each of the following solids:
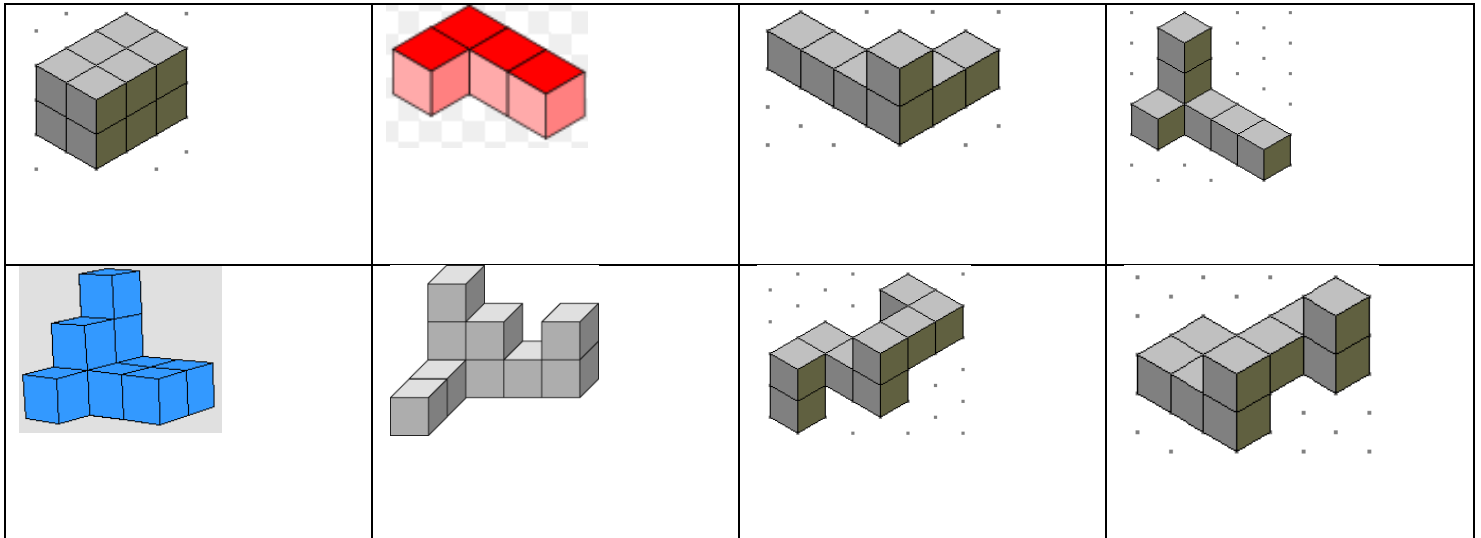
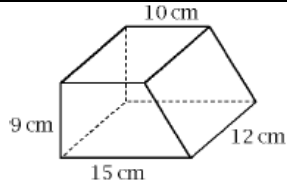2. Draw a net for each of the following solids and find the surface area:
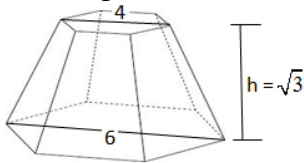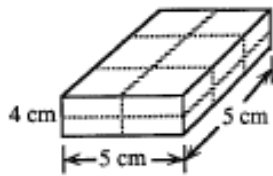
a)

b)

all sides are equal (tetrahedron)

10 cm

9 cm

15 cm

12 cm

Challenge:

4

$h = \sqrt{3}$

6

3. The diagram shows a painted rectangular solid. The solid was then cut along the dotted lines into 12 identical rectangular blocks. What is the total area of all unpainted surface?

4 cm

5 cm

5 cm

4. Bumi wants to cover his quartz crystal with gold leaf. The total height of the crystal is 9cm and can be divided into 3 equal sections. The width of the crystal is 8cm. Bumi thinks he'll need 100cm^2 of gold leaf to cover it. Is it too much, too little or just enough?

A hexagonal prism

+

Plus two hexagonal pyramids

=

Equals a quartz crystal