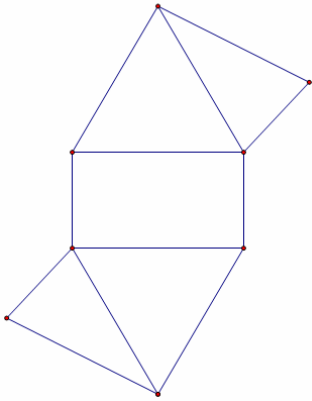


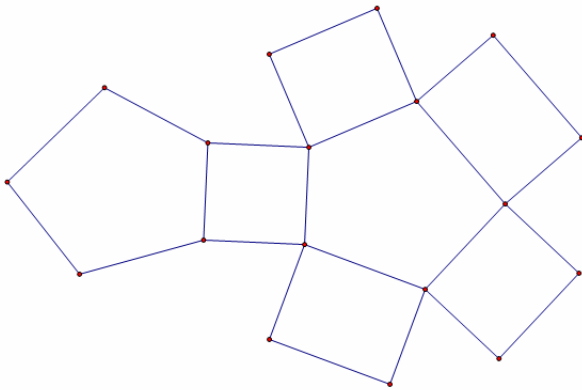
1. A right angle has sides of 14cm and 19cm. What is the length of the third side?  
(There are two possible answers)
  
2. A diagonal of a square is 8 cm long.
  - a. What is the length of one of the sides of the square?
  
  - b. What is the area of the square?
  
3. Which of the following could be the sides of a right triangle?
  - a. 3 in., 4in., 5in.
  - b. 7 cm., 24 cm., 25 cm.
  - c. 8 ft., 14 ft., 16 ft.
  - d. 8 m., 15 m., 17 m.
  - e. 20 cm., 21 cm., 29 cm.
  - f. 12 ft., 35 ft., 37 ft.
  - g. 6 in., 10 in., 12 in.
  - h. 33 m., 56 m., 65 m.
  
4. A right isosceles triangle has legs of length 20 cm. How long is the hypotenuse?
  
5. A 30-60-90 triangle has a hypotenuse of length 40 in. How long is each leg?
  
6. How many vertices are there in a pentagonal pyramid?
  
7. How many edges are there in a triangular prism?

8. What shape does a lateral face have in a rectangular pyramid? How many vertices does this figure have?

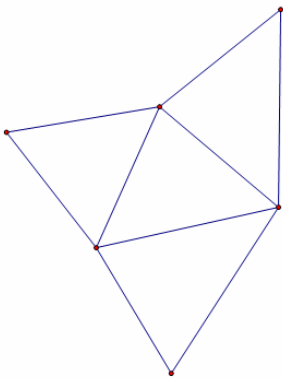
9. The net below is from what 3-dimensional figure? How many edges does it have?



10. The net below is from what 3-dimensional figure? How many vertices does it have?

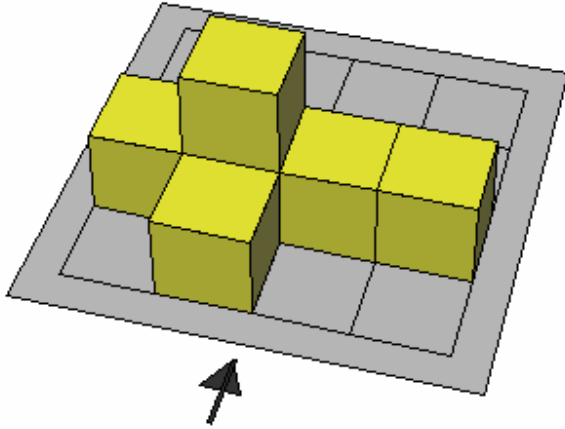


11. The net below is from what 3-dimensional figure? How many vertices does it have?

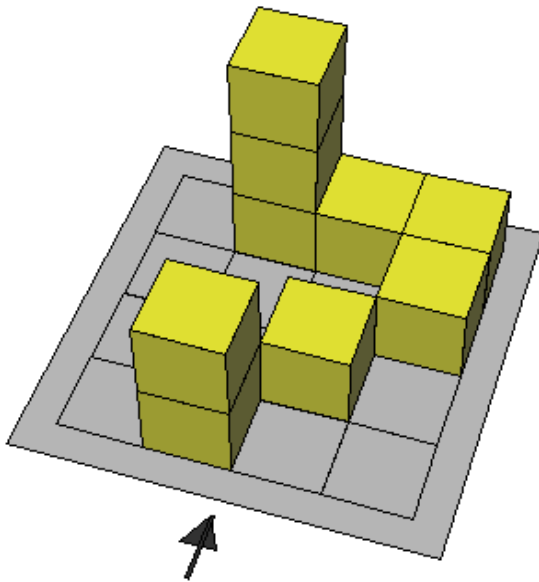


Show the front, right side, and top views of the following 3-D figures:

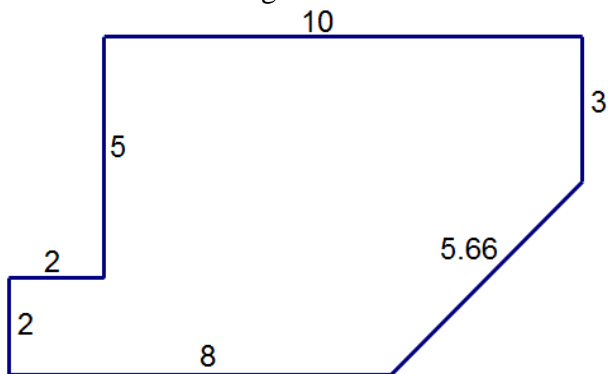
a.



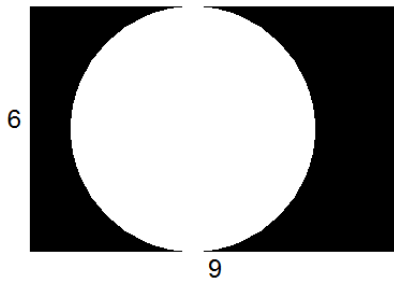
b.



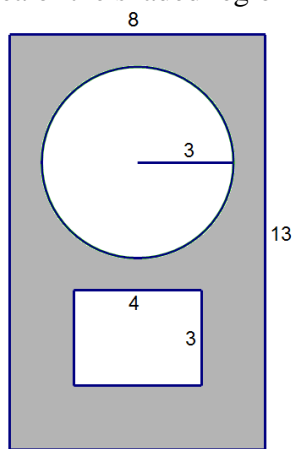
12. Find the area of the figure below:



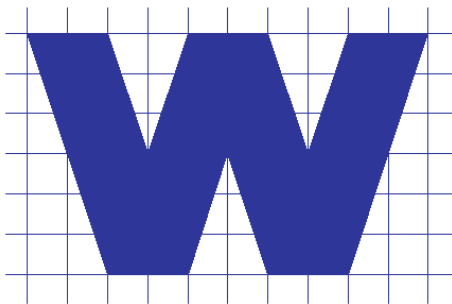
13. Find the area of the shaded region below:



14. Find the area of the shaded region below:



15. Find the area of the shaded “W” below:



16. An ecologist needs to measure the height of a particularly tall spruce tree in Washington. He stands in a position so that he can look up with an angle of elevation of 30 degrees and see the top of the tree. If the ecologist is about 6' 3" (so that his eye is about 6 feet off the ground), and he is standing exactly 110 feet away from the base of the tree on level ground, about how tall is the tree?