Name: _____   Date: _____

Section 1.3 Math Link

This worksheet will help you with the Math Link on page 35.

1. A standard playing card measures 6.5 cm by 9 cm. There are 52 cards in a deck. When placed one on top of the other, the 52 cards make a rectangular solid that is 1.5 cm high. Complete the following steps to calculate the surface area of the rectangular solid.

Area of one card   = (_____ × _____) = _____ cm²
Perimeter of one card   = (2 × _____) + (2 × _____) = _____ cm
Height of stack of 52 cards = _____ cm

Surface = 2(area of one card) + (perimeter of one card) × (height of
area   stack of 52 cards)

     = 2 (_____) + (_____) × (_____)
     = _____ + _____
     = _____ cm²

2. Sticky note pads come in a variety of shapes and sizes. One type is in the shape of a square that measures 9.3 cm by 9.3 cm. It comes in stacks of 12 pads and each pad is approximately 1 cm deep.
  a) If the 12 pads are placed one on top of the other, what is the total depth?
  b) Calculate the surface area of the 12 pads if they are placed one on top of the other.
  c) Picture the pads in two stacks of 6 pads, side by side. What are the dimensions of this new organization of the pads?

    length = _____ cm   width = _____ cm   height = _____ cm

  d) Calculate the surface area of the new organization of the pads.
  e) How do the two surface areas compare?

3. Decide on dimensions for playing cards or notepads. For playing cards, assume that the depth is the same as in #1. For notepads, choose your own depth. State your dimensions and calculate the surface area of your pack of 52 cards or your notepads.