1. What are reasonable pre- or post- conditions for the following incomplete Hoare triples?
   { true }   x := 5   {   }

   {   } x : = x + 3   { x = y + 3 }

   {   } x := x * 2 + 3   { x > 1 }

   { x = a } if (x < 0} then x := -x   {   }

   { false } x := 3   {   }

   { x < 0 } while (x != 0) x := x - 1 {   }

2. Consider the following triples:

   { z=y+1 } x:=z*2 { x=4 }

   { y=7 }   x:=y+3 { x>5 }

   { false } x:=2/y { true }

   { y<16 } x:=2/y { x<8 }

   a. Which of the above are valid?

   b. For which of the valid triples:
       i. Can you write a stronger postcondition? Leave the precondition
           unchanged, and ensure the resulting triple is still valid.
       ii. Can you write a weaker precondition? Leave the postcondition unchanged,
           and ensure the resulting triple is still valid.