```
DEBUG MODE = True
def read_text(prompt):
  Displays a prompt and reads in a string of text.
  Keyboard interrupts (CTRL+C) are ignored
  returns a string containing the string input by the user
  while True: # repeat forever
    try:
      result=input(prompt) # read the input
      # if we get here no exception was raised
      if result==":
        #don't accept empty lines
        print('Please enter text')
      else:
        # break out of the loop
        break
    except KeyboardInterrupt:
      # if we get here the user pressed CTRL+C
      print('Please enter text')
      if DEBUG MODE:
        raise Exception('Keyboard interrupt')
  # return the result
  return result
def read number(prompt,function):
  Displays a prompt and reads in a floating point number.
  Keyboard interrupts (CTRL+C) are ignored
  Invalid numbers are rejected
  returns a float containing the value input by the user
  while True: # repeat forever
    try:
      number_text=read_text(prompt)
      result=function(number_text) # read the input
      # if we get here no exception was raised
      # break out of the loop
      break
    except ValueError:
      # if we get here the user entered an invalid number
```

```
print('Please enter a number')
  # return the result
  return result
def read number ranged(prompt, function, min value, max value):
  Displays a prompt and reads in a number.
  min value gives the inclusive minimum value
  max value gives the inclusive maximum value
  Raises an exception if max and min are the wrong way round
  Keyboard interrupts (CTRL+C) are ignored
  Invalid numbers are rejected
  returns a number containing the value input by the user
  if min value>max value:
    # If we get here the min and the max
    # are wrong way round
    raise Exception('Min value is greater than max value')
  while True: # repeat forever
    result=read number(prompt,function)
    if result<min value:
      # Value entered is too low
      print('That number is too low')
      print('Minimum value is:',min value)
      # Repeat the number reading loop
      continue
    if result>max value:
      # Value entered is too high
      print('That number is too high')
      print('Maximum value is:',max value)
      # Repeat the number reading loop
      continue
    # If we get here the number is valid
    # break out of the loop
    break
  # return the result
  return result
def read float(prompt):
  Displays a prompt and reads in a floating point number.
  Keyboard interrupts (CTRL+C) are ignored
  Invalid numbers are rejected
```

```
returns a float containing the value input by the user
  return read_number(prompt,float)
def read int(prompt):
  Displays a prompt and reads in an integer number.
  Keyboard interrupts (CTRL+C) are ignored
  Invalid numbers are rejected
  returns an int containing the value input by the user
  return read number(prompt,int)
def read float ranged(prompt, min value, max value):
  Displays a prompt and reads in a floating point number.
  min value gives the inclusive minimum value
  max value gives the inclusive maximum value
  Raises an exception if max and min are the wrong way round
  Keyboard interrupts (CTRL+C) are ignored
  Invalid numbers are rejected
  returns a number containing the value input by the user
  return read_number_ranged(prompt,float,min_value,max_value)
def read int ranged(prompt, min value, max value):
  Displays a prompt and reads in an integer point number.
  min value gives the inclusive minimum value
  max value gives the inclusive maximum value
  Raises an exception if max and min are the wrong way round
  Keyboard interrupts (CTRL+C) are ignored
  Invalid numbers are rejected
  returns a number containing the value input by the user
  return read number ranged(prompt,int,min value,max value)
```