IN-LECTURE QUESTIONS FOR VIDEO 8.3

Note: See the answer key at the bottom of this file.

1. Which two parameters does the method onTouch in the OnTouchListener interface have?
   a. Pointers to the View and MotionEvent objects
   b. The time (of type long) and an MotionEvent object
   c. The touch information (an array of integers) and a boolean

2. Which one of the following is true of a MotionEvent object?
   a. It includes information about GPS movements
   b. It includes information about single and multi-touch user interactions
   c. It includes information about on screen graphic movements

3. To get the user action that caused the MotionEvent, call:
   ```
   a. getAction()
   ```
   —or `getActionMasked()` if you want to support multi-touch
   ```
   b. getReason()
   c. getUserAction()
   ```

4. Which of the following are possible single-touch action sequences ("down" = "ACTION_DOWN" etc)?
   a. down, up
   b. down, move, move, up
   c. down, cancel
   d. down, down, up
   e. All of the other options are correct.

5. An ACTION_DOWN event is normally paired with an ACTION_UP or an _____ event.

6. After an ACTION_DOWN event you may get multiple _____ events if your listener returns true for the ACTION_DOWN event.
   a. ACTION_MOVE events
   b. ACTION_CANCEL events
   c. ACTION_TRANSFER events

7. To automatically convert a dimension value named 'xyz' that includes a value and units (e.g. 160dp, 16sp, 32px) into screen pixels use:
   ```
   a. getResources().getDimensionalSize(R.xml.xyz);
   b. getResources().getDimensionPixelSize(R.dimen.xyz);
   c. getResources().getDimensionalSize("xyz");
   ```

8. To create a new bitmap that is a larger or smaller version of an existing bitmap 'original' use:
   ```
   a. Bitmap.createScaledBitmap(original,newWidth,newHeight,true);
   b. Bitmap.createScaledBitmap(original,scaleFactorX,scaleFactorY,d
      estination);
   c. BitmapFactory.createScaledInstance(original,newWidth,newHeight
      ,options);
   ```

9. MotionEvent 'getX()' and 'getY()' return single-touch position values:
    a. Relative to the canvas
    b. Relative to the view
    c. Relative to the window

ANSWER KEY:

1. a
2. b
3. a
4. e
5. ACTION_CANCEL
6. a
7. b
8. a
9. b