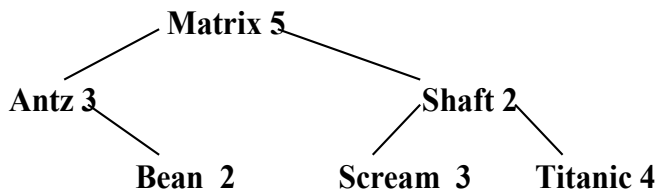


Answers

1.
 G M P S Z
 =====
 Georgie
 Michel
 Pei
 Sam
 Zac

2. Draw the a picture of (you could also have rectangles around the key and value



3a) Write the complete public method with an **iterative** solution.

```

public K maxKey() {
    if (root == null)
        return null;
    else {
        MapNode t = root;
        while (t.right != null)
            t = t.right;
        return t.key;
    }
}

```

3b) Write the public and private methods using a **recursive** solution.

```

public K maxKey() {
    if (root == null)
        return null;
    else
        return maxKeyBeginingAt(root);
}

private K maxKeyBeginingAt(MapNode t) {
    if (t.right == null)
        return t.key;
    else
        return maxKeyBeginingAt(t.right);
}

```

4.

...

```
private int n = 0;
private double sum = 0.0;

public WindSpeedGUI() {
    setTitle("WS Average/Count");
    setSize(180, 100);
    setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
    Container cp = this.getContentPane();
    cp.setLayout(new GridLayout(3, 2, 4, 4));

    cp.add(new JLabel("Wind Speed"));
    wsField = new JTextField();
    cp.add(wsField);

    cp.add(new JLabel("Average so far"));
    averageLabel = new JLabel("??");
    cp.add(averageLabel);

    cp.add(new JLabel("Count so far"));
    countLabel = new JLabel("??");
    cp.add(countLabel);

    wsField.addActionListener(new TextFieldListener());
}

private class TextFieldListener implements ActionListener {
    public void actionPerformed(ActionEvent ae) {
        String numAsString = wsField.getText();
        int input = Integer.parseInt(numAsString);

        n++;
        sum += input;
        double average = sum / n;
        averageLabel.setText("" + average);
        countLabel.setText("" + n);
    }
}
}
```