pt 1:

```
public class pt1 {
    public static void main(String[] args) throws Exception {
        //Find area of circle
        double rad = 2.5;
        var area = 3.14159 * rad * rad;
        System.out.println(area);
    }
}
```

res: 19.6349375

pt 2:

```
public class pt2 {
    //print 3 tic tac toe results with the spacing increasing each time
    public static void main(String[] args) {
        System.out.println("010\n100\n001\n\n");
        System.out.println("  0  0  0\n\n  1  1  1  \n\n  1  0  1\n\n");
        System.out.println("    0    1    1\n\n\n    0    0    0\n\n\n    1    1    0");
    }
}
```

res: 010
100
001

```
  0  0  0

  1  1  1

  1  0  1


    0    1    1


    0    0    0


    1    1    0
```

pt 3:

```
public class pt3 {
    public static void main(String[] args) {
        //find area of triangle
        var base = 3.5;
        var height = 4.85;
        var triangle = (base*height)/2;
        System.out.println(triangle);
    }
```

```
}
```

res: 8.487499999999999

pt 4:

```
public class pt4 {
   public static void main(String[] args) {
      //convert miles to kilometers
      var miles = 60;
      var mtk = 1.60934;
      System.out.println(miles*mtk);
   }
}
```

res: 96.5604

pt 5:

```
public class pt5 {
   public static void main(String[] args) {
      //Write a sequence of cout statements to display your initials (2 – 3 letters) using a cool pattern for each letter.
      System.out.println("SR");
      System.out.println("S.r");
      System.out.println("s.R");
      System.out.println("S.R.");
      System.out.println("□ □ □ □ □ □ □ □ □ \n□ □ □ □ □ □ □ □ □ \n□ □ □ □ □ □ □ □ □ \n□ □ □ □ □ □ □ □ □ \n□ □ □ □ □ □ □ □ □ \n□ □ □ □ □ □ □ □ □ ");
      System.out.println("      SSSS   RRRR\n      SS    R  R\n       SS   RRR\n      SSSS   R  R");
      System.out.println("      SSSSSSSSSSSSSS RRRRRRRRRRRRRRRRR   \n    SS:::::::::::::::SR:::::::::::::::::R  \
n    S:::::SSSSSS::::::SR::::::RRRRRR:::::R \n    S:::::S    SSSSSSSRR:::::R    R:::::R\n    S:::::S           R::::R    R
:::::R\n    S:::::S           R::::R    R:::::R\n    S::::SSSS         R::::RRRRRR:::::R \n     SS::::::SSSSS    R:::::::::::::
RR  \n      SSS::::::::SS    R::::RRRRRR:::::R \n         SSSSSS::::S   R::::R    R:::::R\n              S:::::S  R::::R    R
:::::R\n              S:::::S  R::::R    R:::::R\n    SSSSSSS    S:::::SRR:::::R    R:::::R\n    S::::::SSSSSS:::::SR::::::R
R:::::R\n    S::::::::::::::::SS R::::::R    R:::::R\n    SSSSSSSSSSSSSSS   RRRRRRRR    RRRRRRR");
   }
}
```

res: SR
S.r
s.R
S.R.
□ □ □ □ □ □ □ □ □
□ □ □ □ □ □ □ □ □
□ □ □ □ □ □ □ □ □
□ □ □ □ □ □ □ □ □
□ □ □ □ □ □ □ □ □
□ □ □ □ □ □ □ □ □
SSSS   RRRR
SS   R R
 SS   RRR
SSSS   R R

```
      SSSSSSSSSSSSSSS RRRRRRRRRRRRRRRRR
    SS:::::::::::::::SR:::::::::::::::R
   S:::::SSSSSS::::::SR::::::RRRRRR:::::R
   S:::::S     SSSSSSSRR:::::R     R:::::R
   S:::::S             R::::R     R:::::R
   S:::::S             R::::R     R:::::R
    S::::SSSS          R::::RRRRRR:::::R
     SS::::::SSSSS     R::::::::::::RR
       SSS::::::::SS   R::::RRRRRR:::::R
          SSSSSS::::S  R::::R     R:::::R
               S:::::S R::::R     R:::::R
               S:::::S R::::R     R:::::R
   SSSSSSS     S:::::SRR:::::R     R:::::R
   S::::::SSSSSS:::::SR::::::R     R:::::R
   S::::::::::::::SS R::::::R     R:::::R
    SSSSSSSSSSSSSSS  RRRRRRRR     RRRRRRR
```

pt 6:

```
import java.util.Scanner;

public class pt6 {
   public static void main(String[] args) {
      //Have user enter a number, then double it
      System.out.println("Enter a number");
      Scanner input = new Scanner (System.in);
      int number = input.nextInt();
      System.out.println("Double " + number + " = " + (number * 2));
      input.close();
   }
}
```

res: Enter a number
2
Double 2 = 4