Project 56

DP **EDUCATION**

Coding School

56

DP

How It Works

Start here

Built on Code Studio ▲

❖ Let's position the artist so that X= 50 and Y= 70 by the "Jump to over down" block.

`jump to 50 over 70 down`

❖ Select the red color to create a red rectangular background. Use the "set colour" block for that.

`set color [red]`

❖ First, adjust the size of the brush to 45 with the "set width" block. Then, with the "move forward" block, move forward 250 pixels, turn right by 90 degrees, move forward again by 12 pixels, turn left by 90 degrees, and move back 250 pixels. Use the "repeat do" block to repeat the process 20 times.

```
repeat 20 times
do   set width 45
     move forward by 250 pixels
     turn right by 90 degrees
     move forward by 12 pixels
     turn left by 90 degrees
     move backward by 250 pixels
```

❖ Use the "jump to over down" block to position X= 100 and Y= 100, adjust the size of the brush to 10, and use the "set color" block to select white color. For that use blocks as below.

```
jump to 100 over 100 down
set width 10
set color [white]
```

❖ Now let's create the letter "D". The artist turns right by 90 degrees and the "move forward" block moves forward 180 pixels and turns left by 90 degrees. The related blocks are as follows.

```
turn right by 90 degrees
move forward by 180 pixels
turn left by 90 degrees
```

❖ The "move forward" block moves forward 1.6 pixels and turns left by 1 degree. Use the for loop block as follows to create a semicircle.

```
for i from 0 to 180 count by 1
    move forward by 1.6 pixels
    turn left by 1 degrees
```

❖ Take positions as indicated by the "jump to over down" block.

`jump to 215 over 100 down`

❖ Let's create the letter "P". The artist turns 90 degrees to the left with the "move forward" block and moves forward 180 pixels, and with the "jump backward" block moves 53 pixels backwards and turns left by 90 degrees. The related blocks are given below.

```
turn  left ▼  by  90  degrees
move  forward ▼  by  180  pixels
jump  backward ▼  by  53  pixels
turn  left ▼  by  90  degrees
```

❖ The "move forward" block moves forward 1.1 pixels and turns left by 1 degree. Here also use the for loop block as follows to create a semicircle.
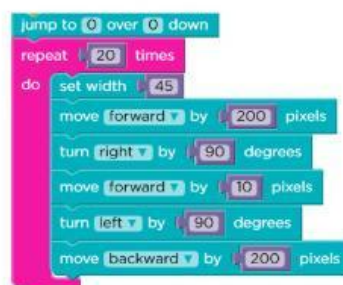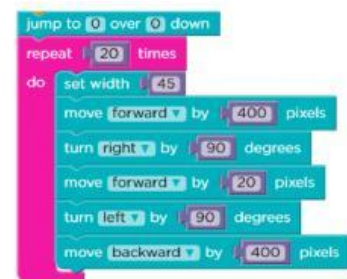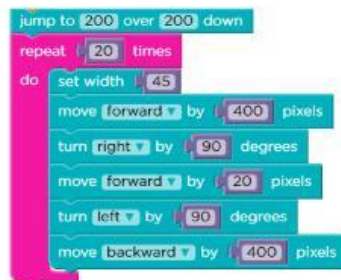
```
for  i ▼  from  0  to  180  count by  1
  move  forward ▼  by  1.1  pixels
  turn  left ▼  by  1  degrees
```

❖ Place the artist in the upper left corner of the screen as follows.

```
jump to the  top left ▼  position
```

Select the correct answer
.

1. Which block set is used to colour the entire screen black?

```
jump to  200  over  200  down
repeat  20  times
do   set width  45
     move  forward ▼  by  400  pixels
     turn  right ▼  by  90  degrees
     move  forward ▼  by  20  pixels
     turn  left ▼  by  90  degrees
     move  backward ▼  by  400  pixels
```

```
jump to  0  over  0  down
repeat  20  times
do   set width  45
     move  forward ▼  by  400  pixels
     turn  right ▼  by  90  degrees
     move  forward ▼  by  20  pixels
     turn  left ▼  by  90  degrees
     move  backward ▼  by  400  pixels
```

```
jump to  0  over  0  down
repeat  20  times
do   set width  45
     move  forward ▼  by  200  pixels
     turn  right ▼  by  90  degrees
     move  forward ▼  by  10  pixels
     turn  left ▼  by  90  degrees
     move  backward ▼  by  200  pixels
```

2. Select the relevant block to create a circle from the following blocks.

```
repeat 360 times
do  move forward by 1 pixels
    turn right by 1 degrees
```

```
for i from 0 to 180 count by 2
    move forward by 1 pixels
    turn right by 1 degrees
```

```
for i from 0 to 360 count by 2
    move forward by 1 pixels
    turn right by 1 degrees
```
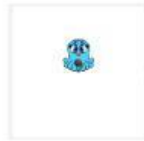
3. Select the blocks to apply to achieve this design.

```
draw sticker 🐙 ▼
```

```
turn left by 180 degrees
draw sticker 🐙 ▼
```

```
turn left by 90 degrees
draw sticker 🐙 ▼
```

4. What blocks should be used to create a line like this?

```
set width 10
move forward by 100 pixels
```

```
move forward by 100 pixels
```

```
set alpha 10
move forward by 100 pixels
```
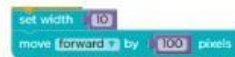
5. What should be applied to get this design?

```
draw a pinwheel edit
    sides 6
    length 70
    repeat 6
```

```
draw a pinwheel edit
    sides 7
    length 70
    repeat 7
```

```
draw a pinwheel edit
    sides 4
    length 70
    repeat 4
```