

```

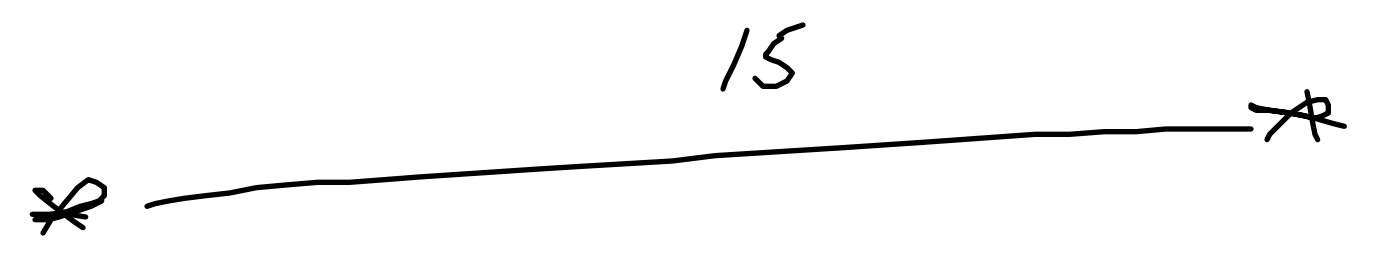
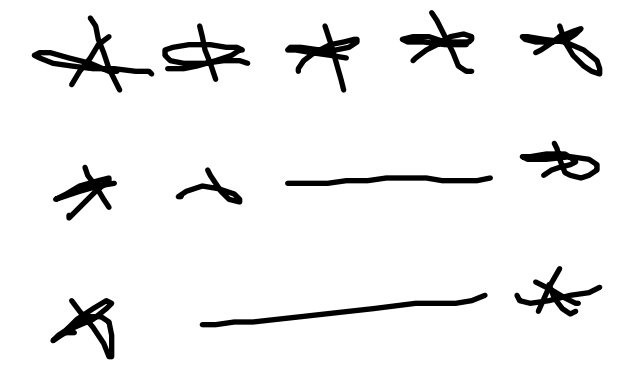
for (x=0; x<3; x++)
{
    for (y=0; y<5; y++)
        printf("*");
    printf("\n");
}

```

```

y=0
while (y<5)
{
    pr *
    y++;
}

```



```

* *
* * * *
* * * * *
* * * * * *

```

$$y = mx + b$$

$$m = \frac{\Delta y}{\Delta x} = \frac{3-0}{8-2} = \frac{3}{6} = \frac{1}{2}$$

$$\frac{8-2}{3-0} = \frac{6}{3} = 2$$

$$b = y - mx = 8 - 2 \cdot 3 = 2$$

$$y = 2x + 2$$

$$\# \text{ stars} = 2r + 2$$

```

for (r = 0; r < 4; r++)
{
    // print proper # of stars
    for (c = 0; c < (r+1)*2; c++)
        printf("*");
}

```

```

// newline
printf("\n");
}

```

r	r	# stars
0		2
1		4
2		6
3		8

$$\# \text{ stars} = (r+1) * 2$$

```

UUUUUU **
UUUU * * *
UU * * * *
* * * * *

```

```

for (r=0; r<4; r++)
{
// print spaces
for (s=0; s< 6-2*r; s++)
printf(" ");

```

```

// print stars
for (a=0; a< (r+1)*2; a++)
printf("*");

```

```

// print newline
printf("\n");

```

```

}

```

x	y
r	#sp
0	6
1	4
2	2
3	0

$$y = mx + b$$

$$m = \frac{\Delta y}{\Delta x} = \frac{0-6}{3-0} = -2$$

$$b = y - mx$$

$$b = 0 - (-2) \cdot 3$$

$$b = 6$$

$$\begin{aligned} \#sp &= -2(r) + 6 \\ &= 6 - 2*r \end{aligned}$$

```

└└└└└ * * * * *
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└ * └└└└└ *
* └└└└└ *

```

```

for (r=0; r<5; r++)
{
    for (s=0; s<4-r; s++)
        printf(" ");
    for (a=0; a<5; a++)
    {
        if ((a==0) || (a==4))
            printf("*");
        else
            printf(" ");
    }
    printf("\n");
}

```

r	#sp
0	4
1	3
2	2
3	1
4	0

$$\#sp = -r + 4$$

$$4 - r$$

