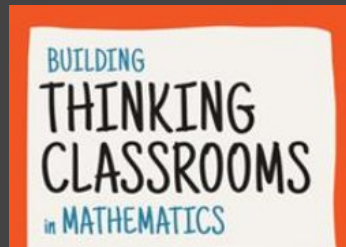


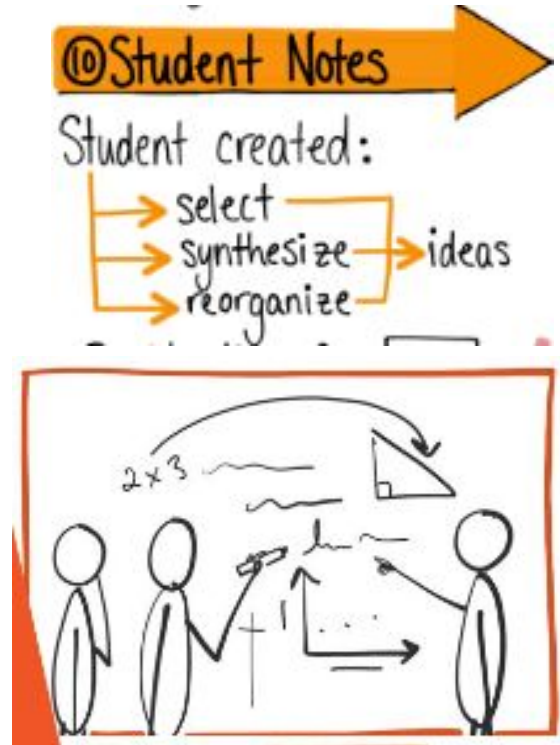
Meaningful Notes

Adapted from the book *Building Thinking Classrooms in Mathematics* and the work of Peter Liljedahl



Meaningful Notes

- Is the act of making notes (not taking notes)
- Helps make your learning more permanent
- Organizes your thoughts
- Is a record of your learning
- Transfers collective learning to individual learning and formal understanding



Source: <https://buildingthinkingclassrooms.com/>

How to do it:

- You will work at the white boards in your groups
- Your teacher will give you examples for **Quadrant A** and **Quadrant B**
- You can each have a marker (not limited to one)

The whiteboard is divided into four quadrants labeled A, B, C, and D. Quadrant A contains a square diagram with side length \square in and the formulas $A = \square \text{ in} \times \square \text{ in} = \square \text{ in}^2$ and $P = \square \text{ in} + \square \text{ in} + \square \text{ in} + \square \text{ in} = 2 \times \square \text{ in} + 2 \times \square \text{ in} = \square \text{ in}$. Quadrant B contains an L-shaped polygon with a top-left side of 3ft, a left side of 6ft, a bottom side of 7ft, and a right side of 4ft. A dashed horizontal line is drawn across the top of the L-shape. Quadrant C is empty. Quadrant D contains the text 'THINGS TO REMEMBER:'. The labels A, B, C, and D are written in red at the corners of the whiteboard.

Source: Livestream #3 with Peter Liljedahl (facebook)

How to do it:

- Divide your board into 4 parts
- **Quadrant A:** complete the example
- **Quadrant B:** work the example
- **Quadrant C:** work your own example
- **Quadrant D:** things to remember, or notes to your future forgetful self

EXAMPLE 1: FIND THE AREA AND PERIMETER.

3ft
6ft
4ft
7ft

A B

THINGS TO REMEMBER:

EXAMPLE 2: FIND THE AREA AND PERIMETER.

D C

Source: Livestream #3 with Peter Liljedahl (facebook)

Quadrant A:

Complete this example

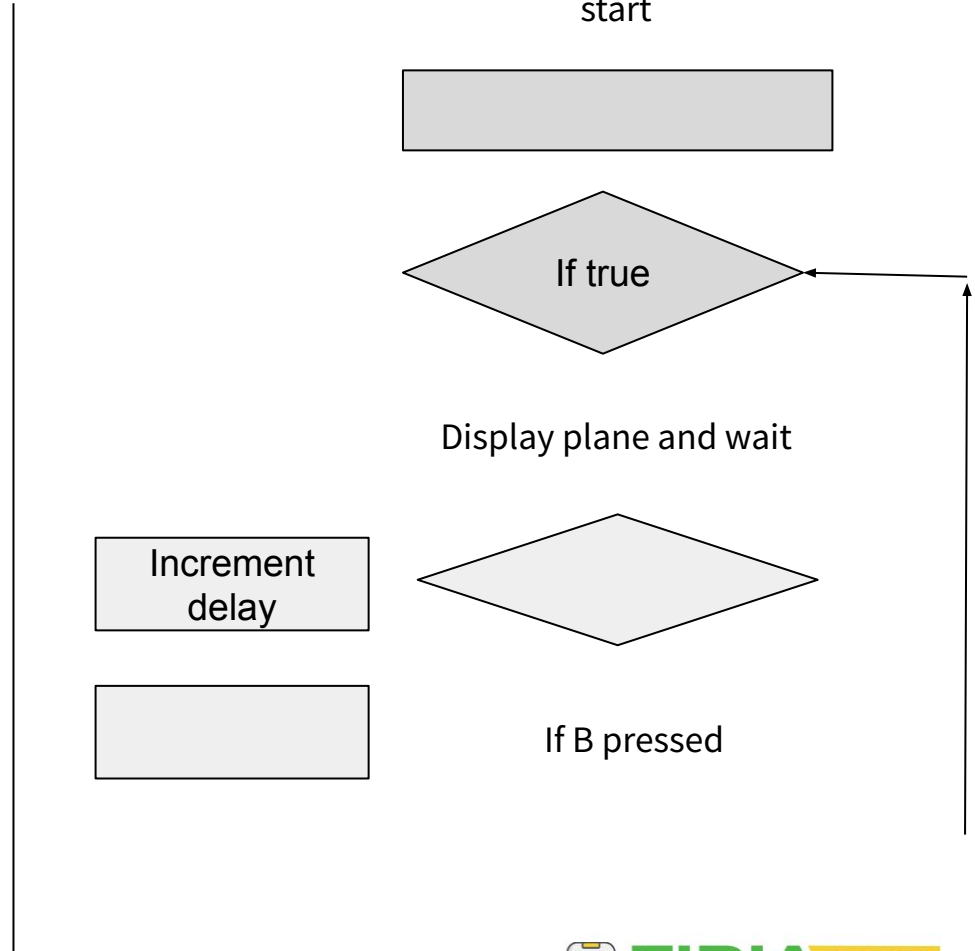
- Fill in the missing instructions
- Draw the correct flowchart shape and flow lines

```
delay = 1

while True:
    display.show(pics.PLANE)
    sleep(delay)

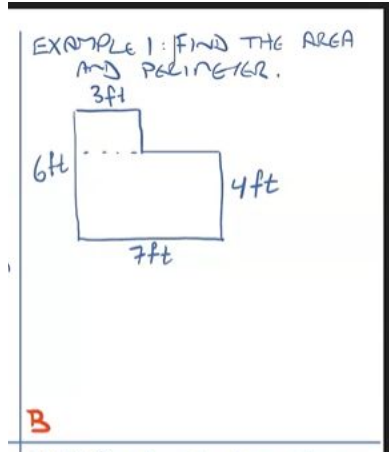
    if buttons.was_pressed(BTN_A):
        delay = delay + 0.2

    if buttons.was_pressed(BTN_B):
        delay = delay - 0.2
```



Quadrant B:

Work this example by creating a flowchart



```
delay = 2
```

```
while True:
```

```
    display.show("Press A or B")
```

```
    if buttons.was_pressed(BTN_A):
```

```
        pixels.set(0, GREEN)
```

```
        pixels.set(3, BLACK)
```

```
        audio.mp3("sounds/codetrek")
```

```
    else:
```

```
        pixels.set(0, BLACK)
```

```
        pixels.set(3, GREEN)
```

```
        audio.mp3("sounds/codex")
```

```
    if buttons.was_pressed(BTN_B):
```

```
        delay = delay - 0.2
```

```
        display.show(pics.TARGET)
```

```
        sleep(delay)
```

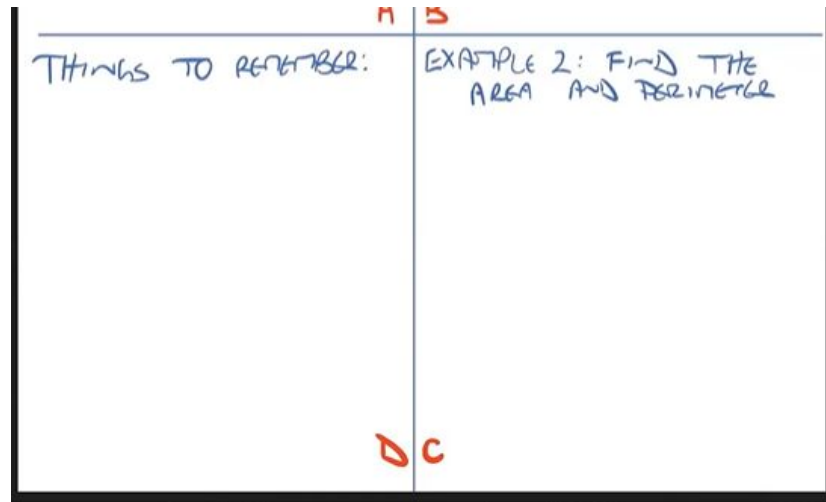
Quadrant C and D:

Quadrant D:

things to remember, or notes to your future forgetful self

Quadrant C:

work your own example (flowchart only)



Source: Livestream #3 with Peter Liljedahl (facebook)