# The **5s** Numbers Game

5s is often one of the first steps in a LEAN project

Sort

Set in order

Shine

Standardize

Sustain

# 5S – Set Up

- In approx. 30 min. you will feel what it's like to be on a LEAN improvement team

    - Experience frustration of performing what should be a simple task in a disorganized workplace

    - Experience the incremental improvement of using **5s**

- Each step will take you further into **5s**

    - It is important to NOT look ahead
    - Each step is simple to follow
    - Peaking ahead will *"**spoil**"* your experience

- Will need a pen or pencil

# The worksheet on the following page represents the Current State of the Workplace   [no peeking]

- Your job is to use a pen or pencil to Strike Out the numbers 1 to 49 in Correct Sequence.
  ## Example:  ~~1~~   ~~2~~   ~~3~~

- You have 30 seconds to complete this task

- The timekeeper will tell you when to start and stop

- After time is called record on a Flipchart the how may numbers each individual crossed out
  - Circle the HIGHEST and LOWEST numbers for this round
  - You will have more chance in next rounds

This page contains a scattered arrangement of numbers at various sizes and orientations.

# How do you feel about your score?

What appeared to get in the way of achieving a higher score?

# We are going to implement 5S in your area the first step is
## Sort

*Our initial analysis shows number 50 to 90 are not essential to our daily task …   they have been removed from the work area*

- In a moment you will repeat "strike out" task

- Same rules apply
  - Pen to strike out numbers 1 – 49 in sequence
  - 30 seconds when timekeeper says start and stop

- After - record on a Flipchart - Circle the HIGHEST and LOWEST for your group

3 30 48 45 33 27
21 18
24 9 36
12 6
39 15
29 2

20 5 23 35
32 41 8 44
38 47 26 17
11 14 34 7
49 40 31
10 28 22 16 25
46 13 4
19 37 43

# How do you feel about your score?

What appeared to get in the way of achieving a higher score?

# After some improvement we'll move to the next step

## Set In Order (a.k.a "Straighten")

- We have installed some racking on the job site using a 3 X 3 grid

- We have organized the numbers
  - #1 is in bottom left, 2 in middle left, 3 in top left, 4 in bottom middle, 5 in middle middle… and so on up to 49

- Strike out 1-49
- Same rules apply – 30 sec.
- Record

| 3 | 6 | 9 |
|---|---|---|
| 2 | 5 | 8 |
| 1 | 4 | 7 |

3 48 30
21
12
39

24
6
42
33
15

45 27 18 36

29 2
20
38 47 11

32 41 5 23
14

8 35
26 44 17

28
10
46 19 37 1

49 40 31
22
13 4

34 7
16
43 25

# How do you feel about your score?

What appeared to get in the way of achieving a higher score?

# We will skip step 3 "Shine and move to the step 4

# Standardize

*After an in-depth work flow analysis, we installed a more detailed racking system*

- We re-organized the numbers in a **Standard Way** to ease the completion of the task

- Strike out 1-49
- Same rules apply – 30 sec.
- Record

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|
| 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 |
| 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | |

# How do you feel about your score?

What appeared to get in the way of achieving a higher score?

# Quality Audit Alert:

- We have recently discovered **2** numbers are <u>missing</u>

- We can not finish our work without them

- Your team's task is to identify the two missing numbers

# Find Missing Numbers

*In a moment we will…*

- Start timer

- Flip over page

- Find missing numbers
  - Let your team know without telling other teams
  - Raise your hands when you find the missing #s

- Timekeeper – will call out the number of shifts
  - Shifts are 30 seconds long

- Track number of shifts to find missing #s

72 48 30 87 69 33 45 27 3 75 21 51 24 9 54 36 63 57 6 78 90 12 39 66 84 60 15 18 53 62 29 2 68 11 98 80 5 35 74 65 56 23 8 44 68 20 83 14 32 41 50 96 17 71 47 38 59 64 34 7 49 31 19 28 54 40 76 16 88 25 10 22 58 82 4 43 70 33 46 19 37 85 13 67 79

# Find Missing Numbers

*Lets try that again in a workplace that has experience with* **Sort,  Set in Order** *and* **Standardization** *steps of* **5S***.*
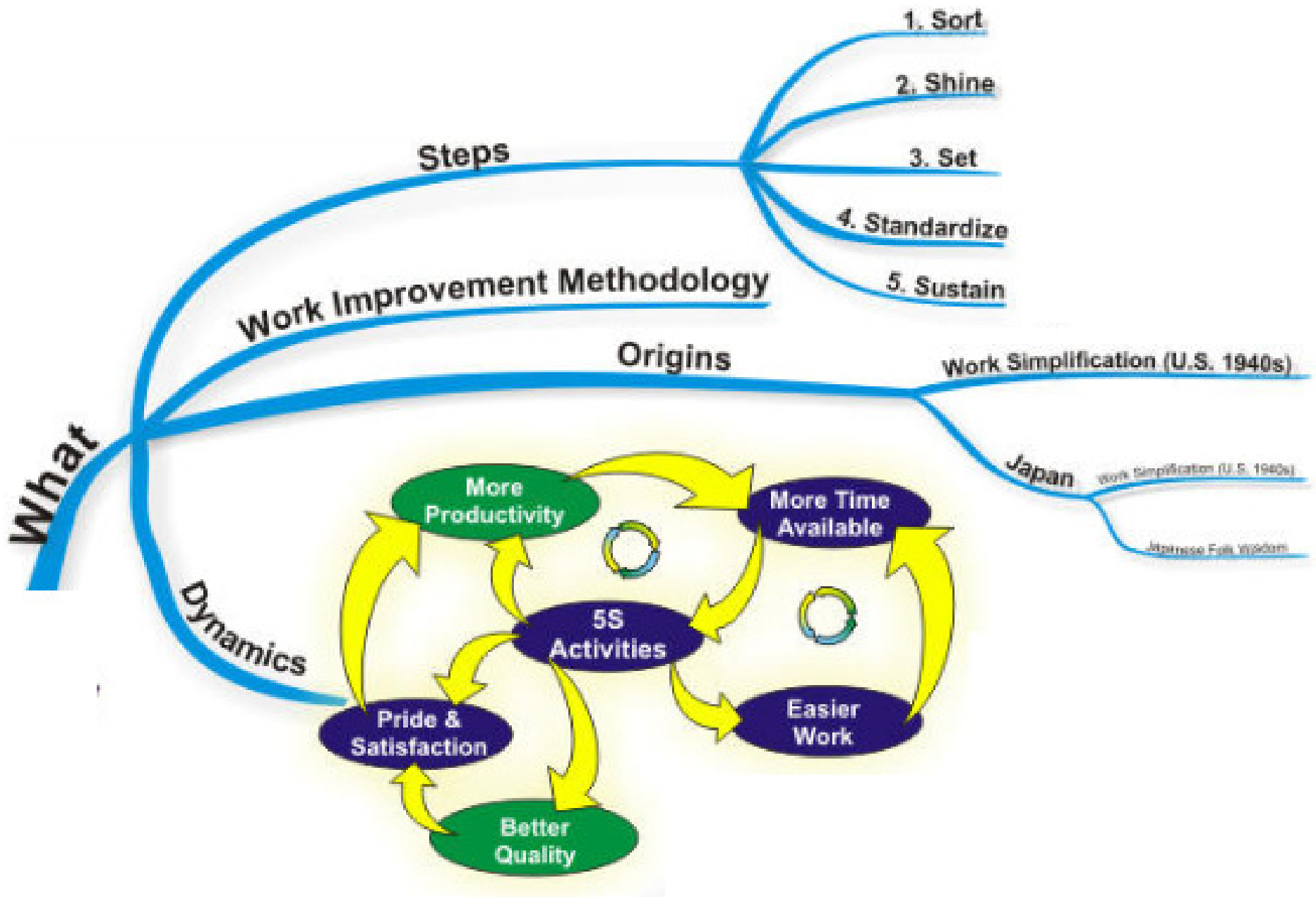
- Same process -  Find missing numbers
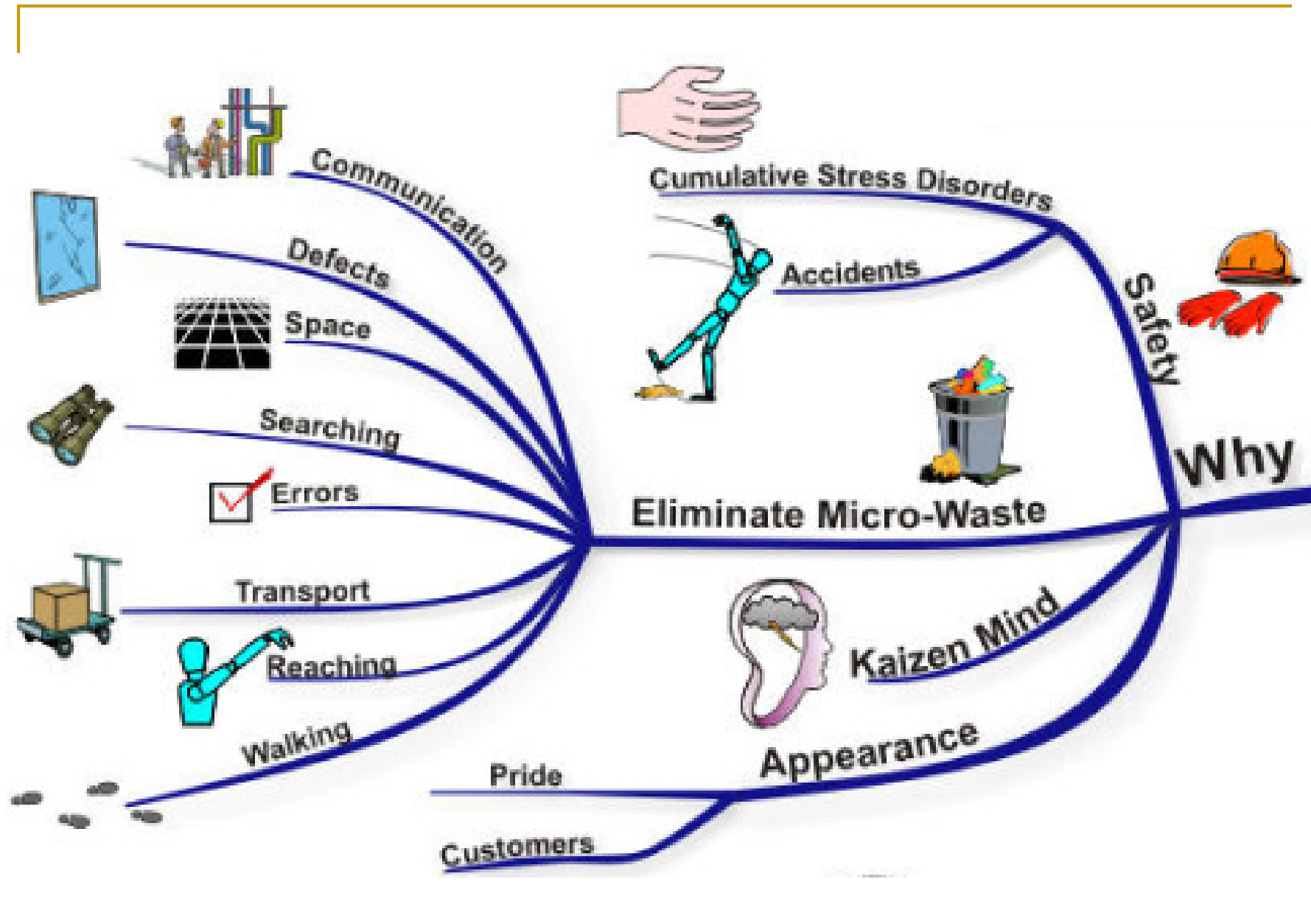- track number of shifts

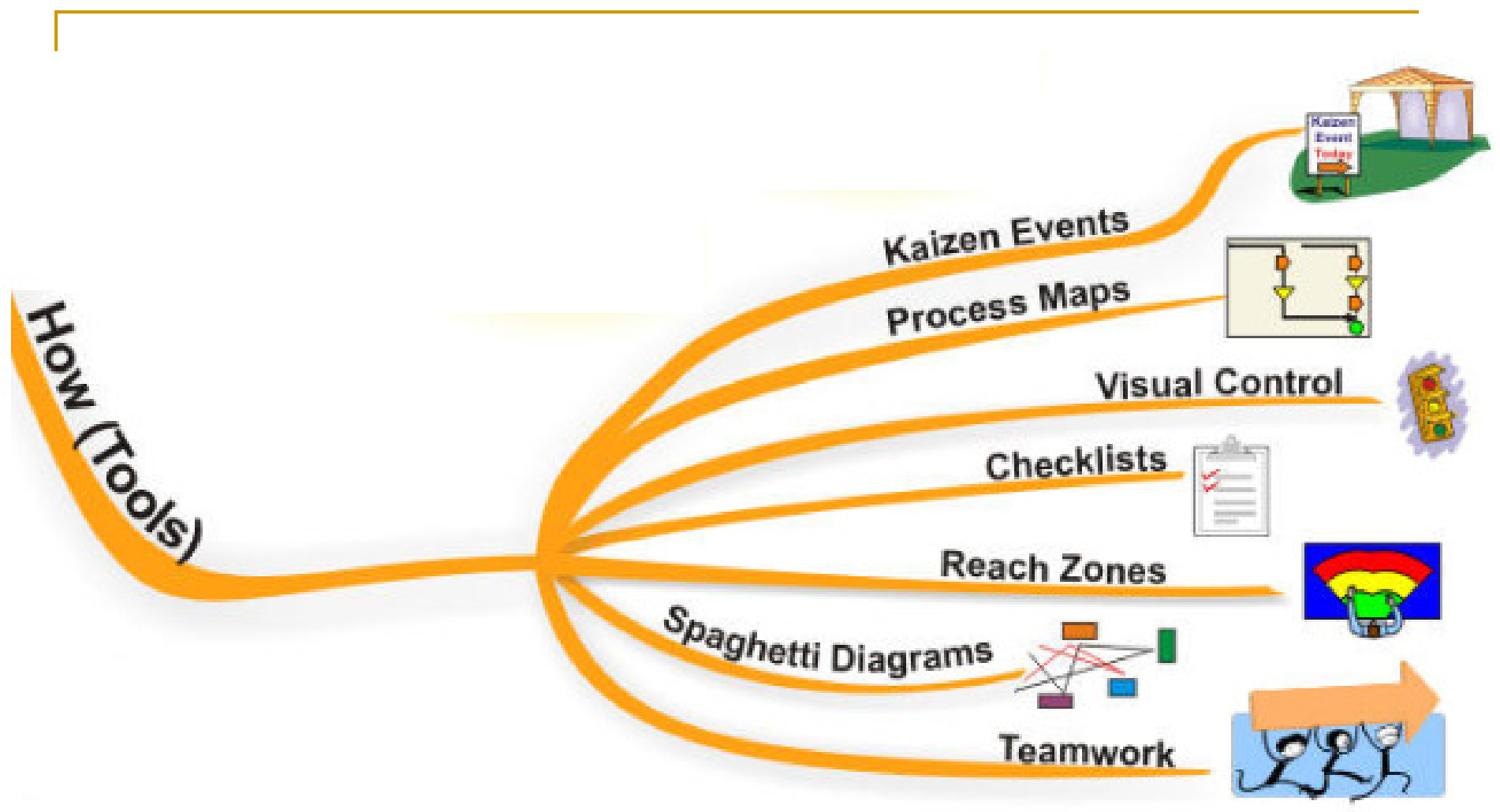| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|
| 11 | 12 | 13 | 14 | 15 | 16 | 17 | | 19 | 20 |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 |
| 41 | | 43 | 44 | 45 | 46 | 47 | 48 | 49 | |

# Payoff Questions

- What did you learn playing the **5S** game?

- What does this have to do with your workplace?

- Consider some <u>specific</u> things you do
  A Key Process or Service

  - How would you apply **5S**?
  - What difference would it make?

Communication

Defects

Space

Searching

Errors

Transport

Reaching

Walking

Cumulative Stress Disorders

Accidents

Safety

Why

Eliminate Micro-Waste

Kaizen Mind

Appearance

Pride

Customers

How (Tools)

- Kaizen Events
- Process Maps
- Visual Control
- Checklists
- Reach Zones
- Spaghetti Diagrams
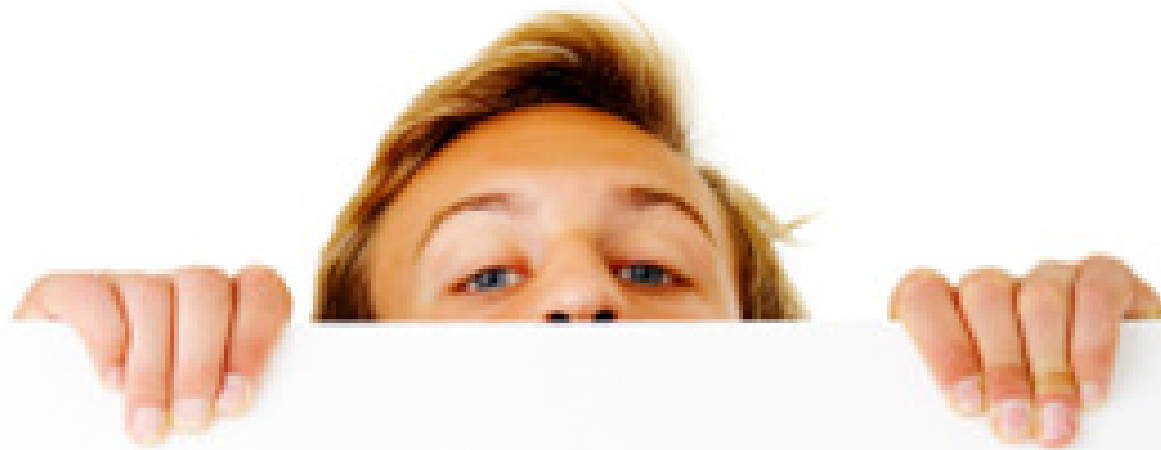- Teamwork

# 5s – Gone Wrong

# End

Handouts for 5S game on following slides

# $5$s Exercise

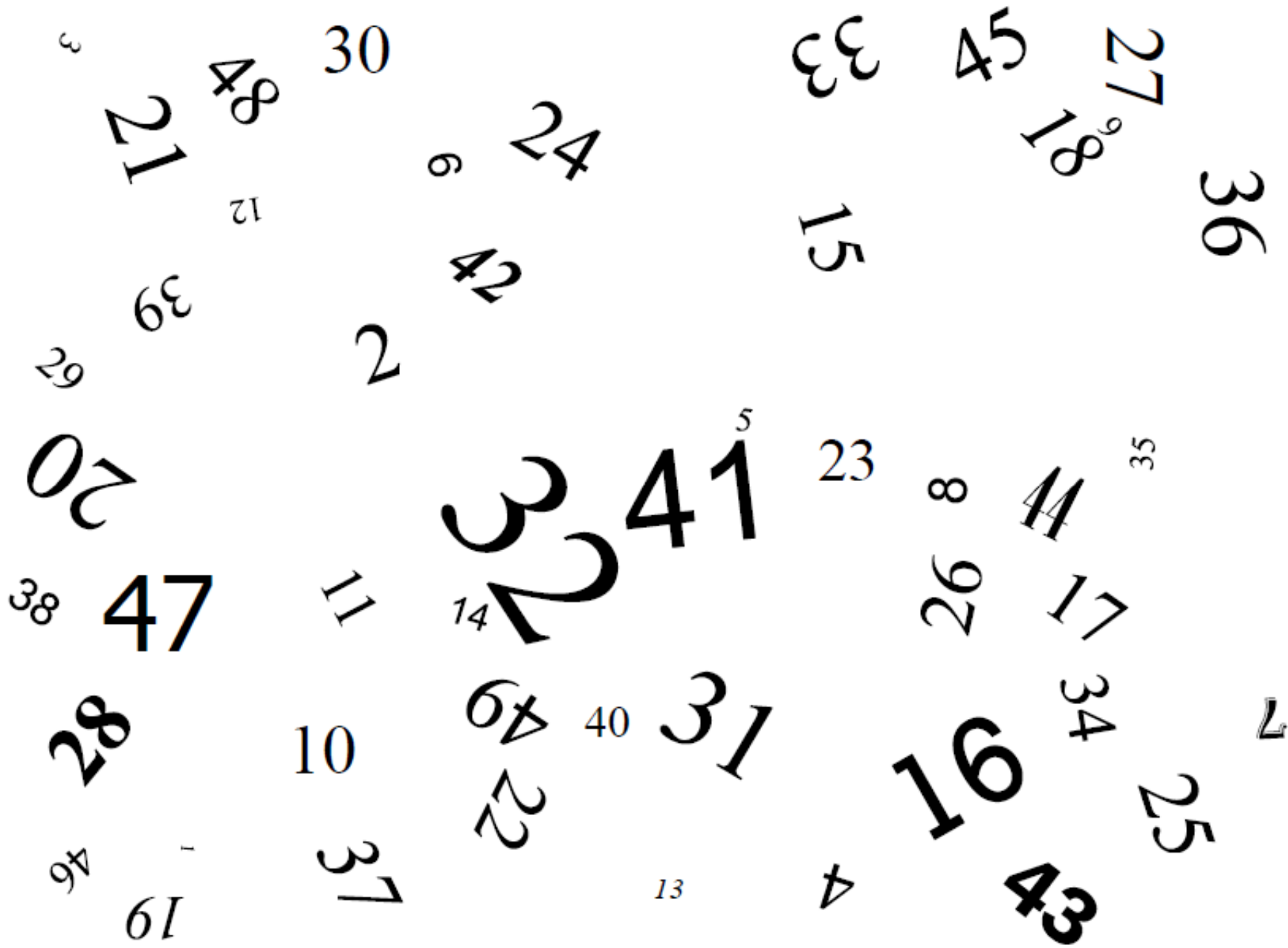## No Peeking

# Current Workplace

## Sheet 1

**No Peeking**

# Sort

Sheet 2

**No Peeking**

3
30
48
21
24
33
45
27
9
6
18
36
12
15
39
42
29
2
20
5
38
47
23
41
32
8
35
11
14
44
26
17
49
40
31
34
7
28
10
22
16
25
46
37
4
43
19
13
1

# Set in Order

## Sheet 3

No Peeking

**Top**

3  48  30

21

12

39  24  6  42  33  45  27  18  9  36  15

29  2  5  23  35

20  32  41  8  44

38  47  11  14  26  17

28  49  40  31  34  7

10  22  16  43  25

46  19  37  13  4

# Standardize

## Sheet 4

**No Peeking**

**Top**

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|
| 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 |
| 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | |

# Find 2 missing Numbers

## Sheet 5

No Peeking

**Top**
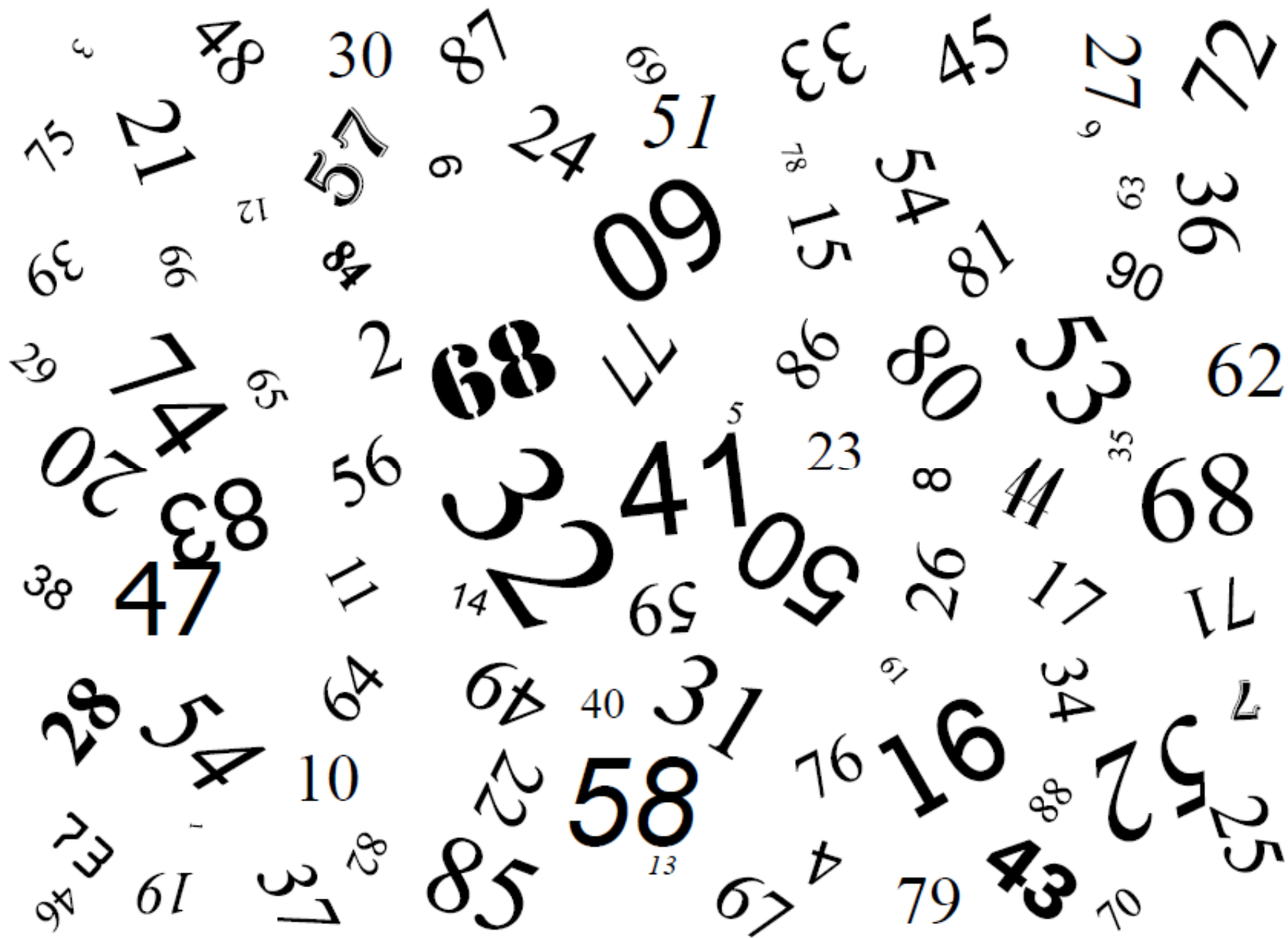
# Find missing numbers after **5S**

## Sheet 6

**No Peeking**

**Top**

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 | | 19 | 20 |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 |
| 41 | | 43 | 44 | 45 | 46 | 47 | 48 | 49 | |