

User Story & Estimation

Agile Scrum

User Story vs Use Case

- A use case is a series of **interactions** by the user (Actor) with the system and the **response** of the system.
- User stories are actually **narrative texts** that describe an interaction of the user and the system, focusing on the **value** a user gains from the system.

User Story: “INVEST” model

- A good User Story uses the :
 - **Independent**. Reduced dependencies = easier to plan
 - **Negotiable**. Details added via collaboration
 - **Valuable**. Provides value to the customer
 - **Estimable**. Too big or too vague = not estimable
 - **Small**. Can be done in less than a week by the team
 - **Testable**. Good acceptance criteria

User Story Template

- Typical template has 3 parts: the title, the description (or body of the user story), and the acceptance criteria.

Title
Description: (User Story)
Acceptance Criteria

As a [type of user], I want [some goal] so that [some reason].

A brief description of “done”.
“How will I know when I’m done with the story?”

Writing User Stories

- “As a **newbie game player**, I want to **know who goes first** so that **we can start the game.**”
- References
 - <http://www.mountaingoatsoftware.com/agile/user-stories>
 - <http://agileatlas.org/articles/item/user-stories>

ESTIMATION

How long will it take to ...

Walk to Ang Mo Kio Hub?

30 minutes?

60 minutes?

How to you derive at the number?

Distance divided by speed?

The diagram illustrates the formula for calculating duration. It features the text 'Work (or Effort) / Velocity = Duration' in red. Above 'Work (or Effort)' is a blue arrow pointing up to the text 'Distance divided by speed?'. Above 'Velocity' is another blue arrow pointing up to the same text 'Distance divided by speed?'. A red diagonal line separates 'Work (or Effort)' from 'Velocity', and a red equals sign follows 'Velocity'.

$$\text{Work (or Effort)} / \text{Velocity} = \text{Duration}$$

Ideal vs elapsed?

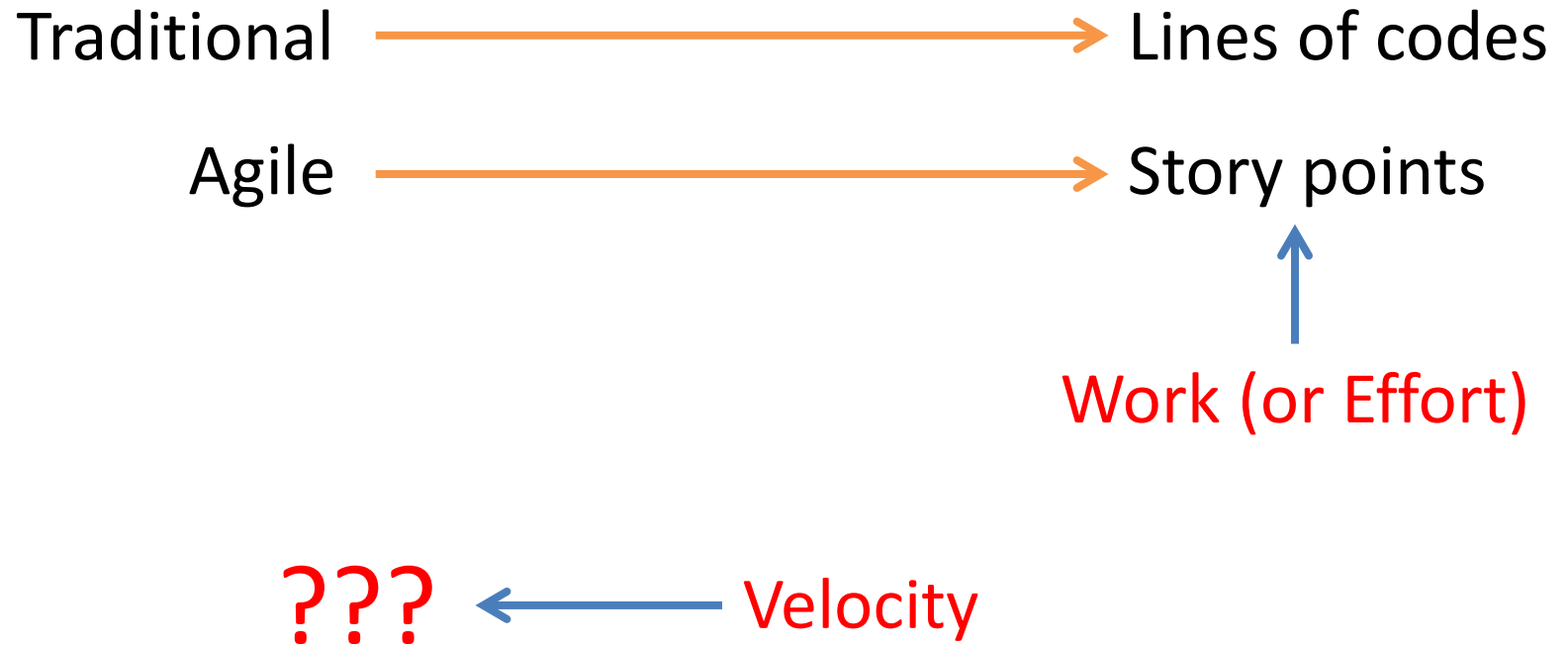
On an ideal day, how long do you take?

2 hours

But in real life, you maybe interrupted constantly ?

8 hours

Using Story Points



Story Points

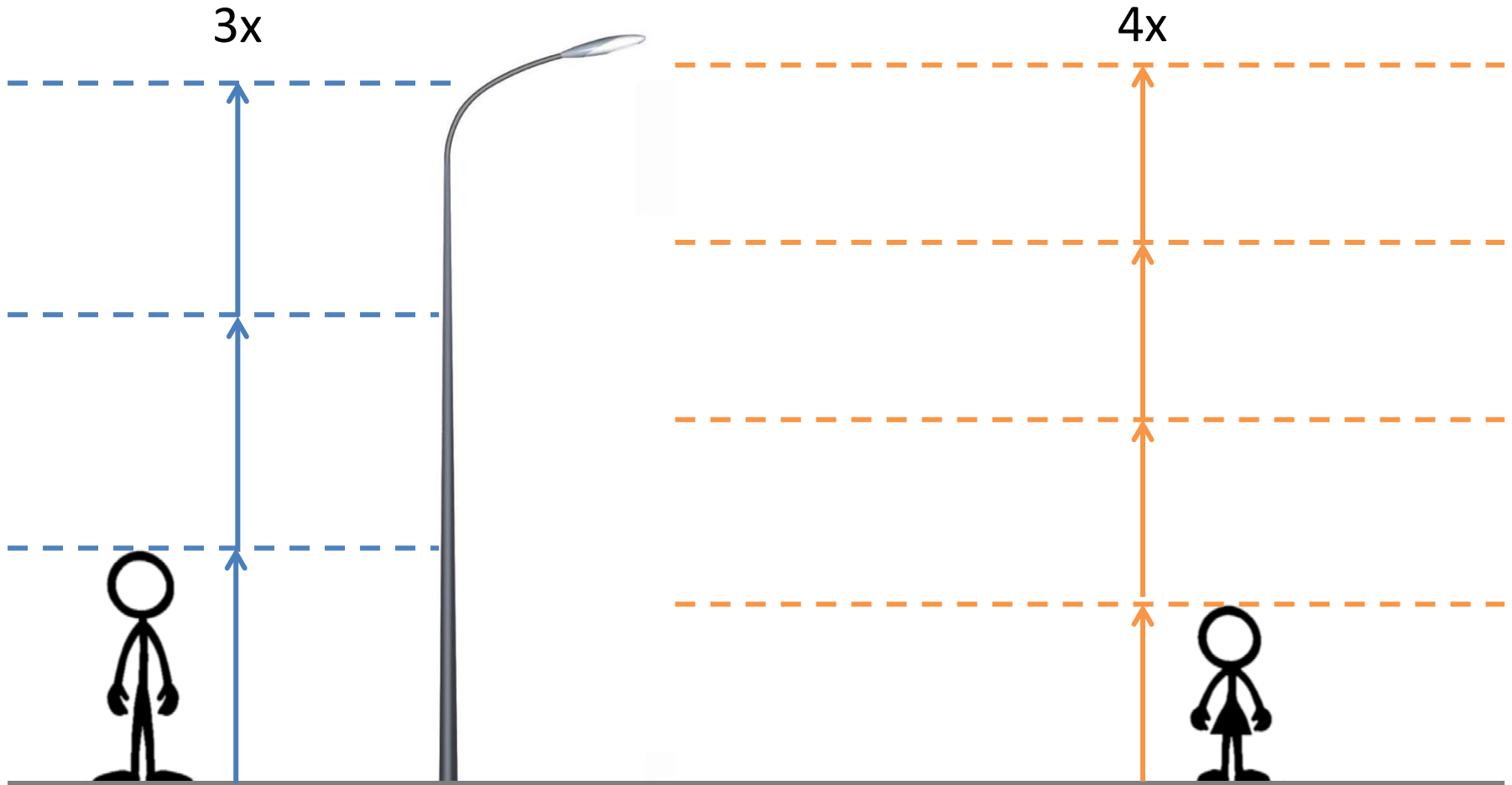
Used to estimate size of a task

320 story points

Velocity measure how many story point
each team can complete

40 story points per sprint

Estimating Story Points



Estimating Story Points



How tall are these flat?

10x? 20x? 30x?
or 21x or 23x?

Planning Poker



Each card has one of the **valid estimates** on it
for example: 0, 1, 2, 3, 5, 8, 13, 20, 40 and 100

If it is bigger than agreed limit (8, 13 or more) then it
should be split into more smaller ones.

Back to our Flat



0

1

2

3

5

8

13

20

40

100

Split!

How tall are these flat?

~~10x?~~ ~~20x?~~ ~~30x?~~

12 Storey Flat

0

1

2

3

5

8

13

20

40

100



How tall are each storey?

2x? 3x?

Split!

What is YOUR estimate?

Discuss the differences

Re-estimate till estimate converged

2x?

Back to our Story

Let's say 1 story point = 1 ideal day of work (8hrs)

Compare one story to the next

Group the story that look similar in size

Each member estimate the story points

Velocity

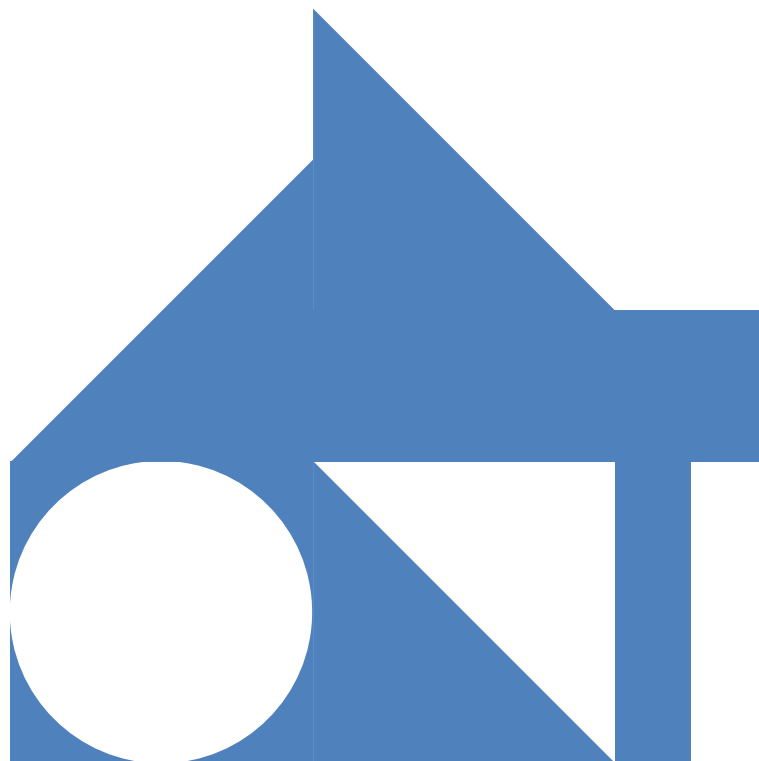
Decide how many story points your team can do within each Sprint.

This will be your velocity. (May change after review)

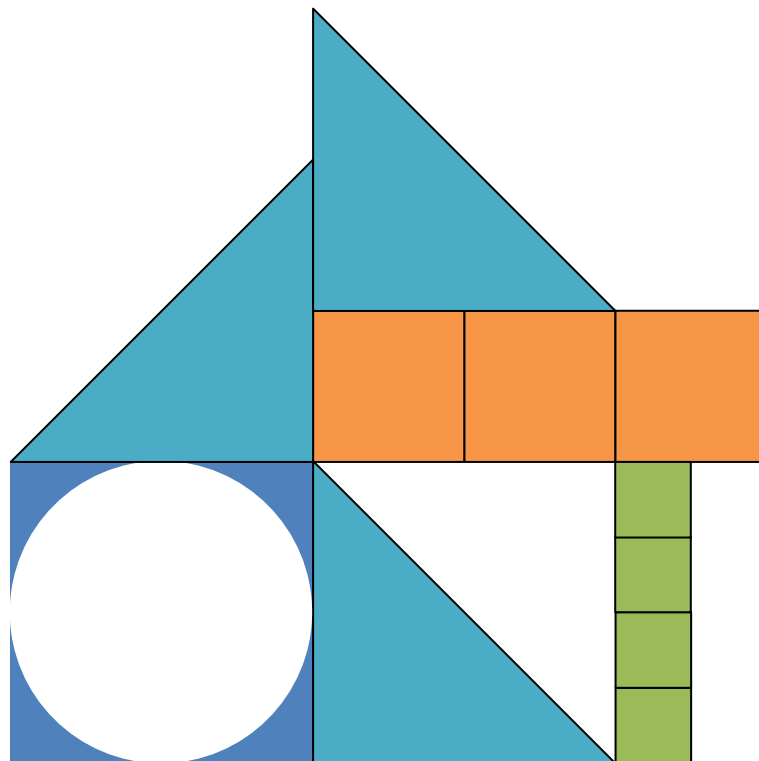
Choose a story or stories that fit into a Sprint.

Based on the velocity, you can estimate the duration of the project.

What is the Shaded Area?

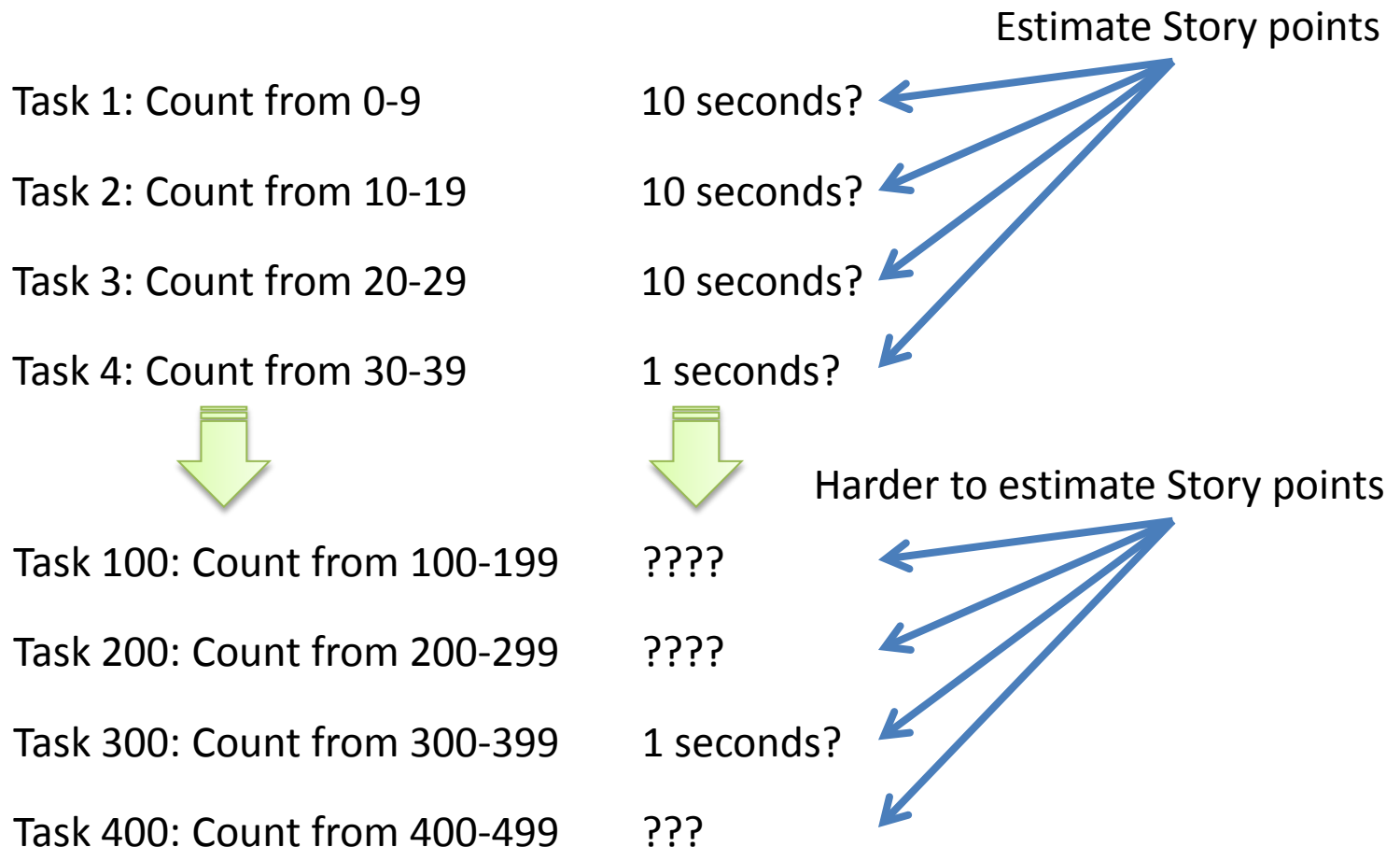


What is the Shaded Area?



Let's Count, again!

Decide on velocity (if timebox to 1 minute per cycle)



Group Estimation Exercise

- A text based number series generator to display the first n numbers in the sequence.
 - Main Menu
 - Arithmetic Sequence (+/-)
 - with d difference
 - Geometric Sequence (x)
 - with a factor of x
 - The Fibonacci Sequence
 - Triangular Number Sequence
 - Squares Sequence
 - Cubes Sequence
 - Pascal's Triangle