

Quantifiers: every NP and a NP

11. Every student passed the exam.

12. A girl passed the exam.

| student | pass the exam |
|---------|---------------|
| Annie | ✓ |
| Becky | ✓ |
| Susan | ✓ |
| John | ✓ |

| student | pass the exam |
|---------|---------------|
| Annie | ✗ |
| Becky | ✓ |
| Susan | ✗ |
| John | ✗ |

Quantifiers: every NP and a NP

11. Every student passed the exam.

12. A girl passed the exam.

| student | pass the exam |
|---------|---------------|
| Annie | ✓ |
| Becky | ✓ |
| Susan | ✓ |
| John | ✓ |

Sentence 11 is true

Sentence 12 is true

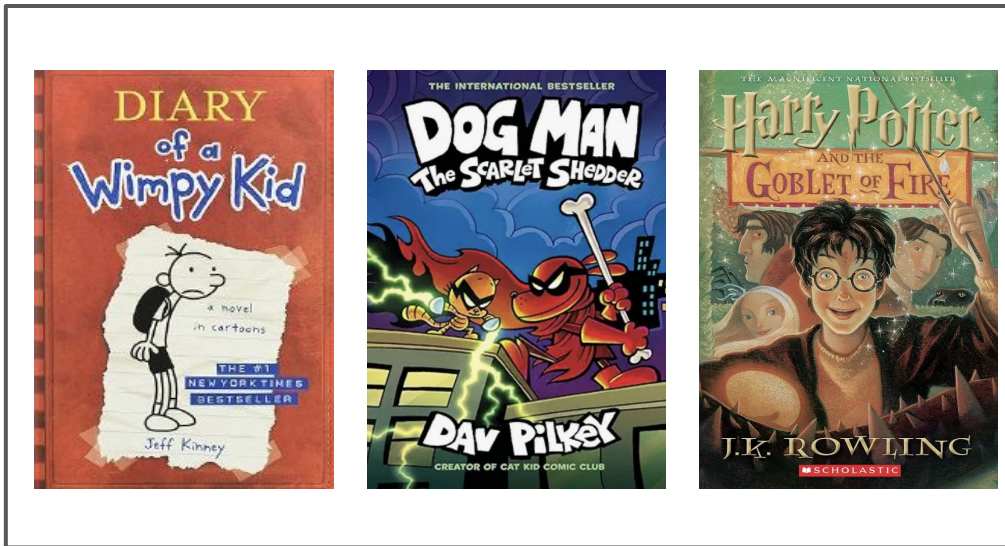
| student | pass the exam |
|---------|---------------|
| Annie | ✗ |
| Becky | ✓ |
| Susan | ✗ |
| John | ✗ |

Sentence 11 is false

Sentence 12 is true

Quantifiers: most NP

13. Greg read **most books**.

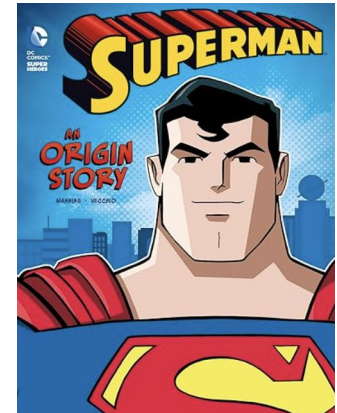
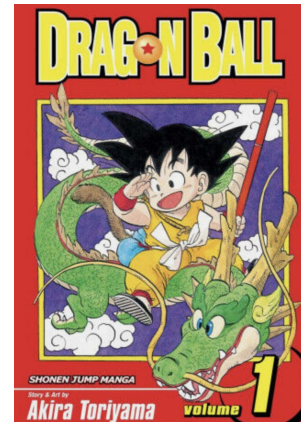
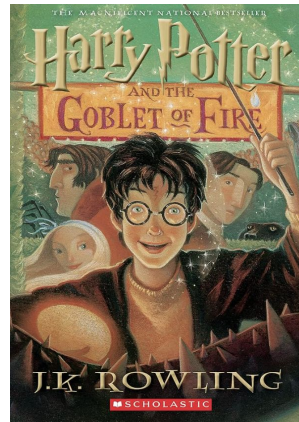


what Greg read

Sentence 6 is true

Quantifiers: 'most'

13. Greg read **most** books.

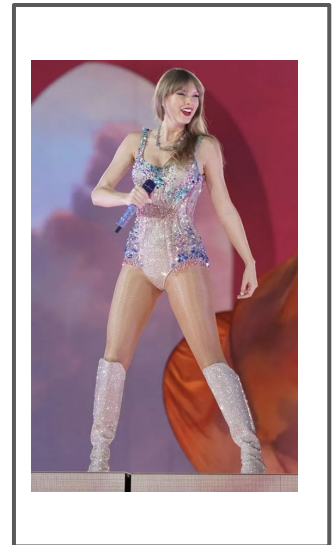
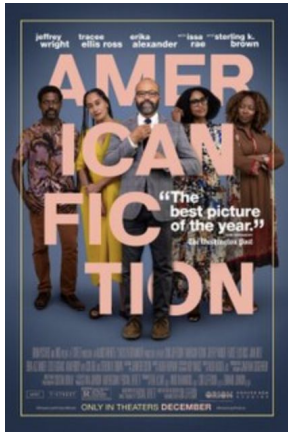


what Greg read

Sentence 6 is false

Quantifiers: 'no'

14. Sue watched **no** movie.



what Sue watched

Sentence 7 is true

Quantifiers

The following nominal expressions express the information regarding quantities without using numbers.

- every NP
- a NP
- most NP
- a few NP
- no NP

... but how?

Our intuition

14. Most students walked.



True

Our intuition

14. Most students walked.



False

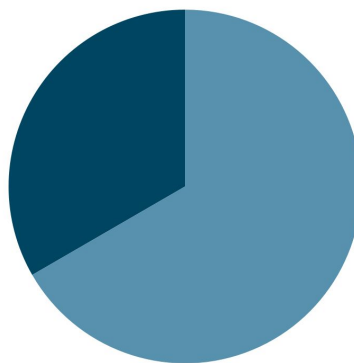
Our intuition

14. Most students walked.

Truth condition:

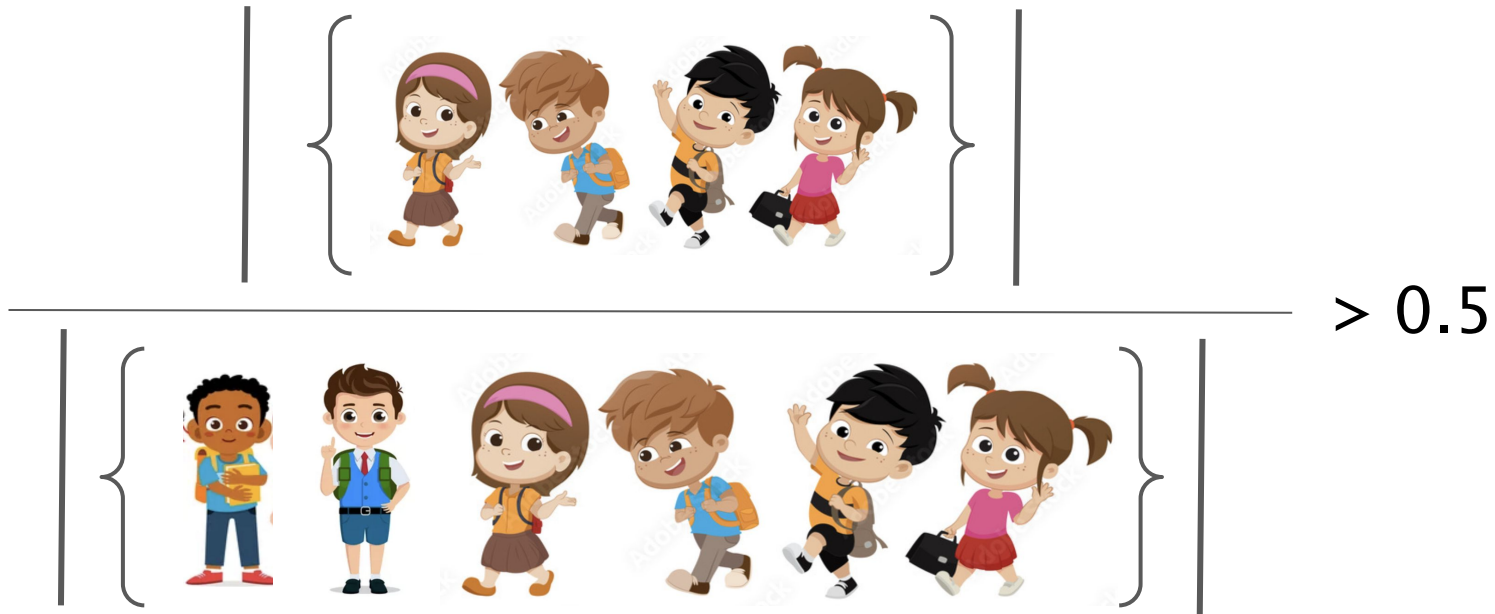
The girls who walked are more than half of the students.

students who didn't walk



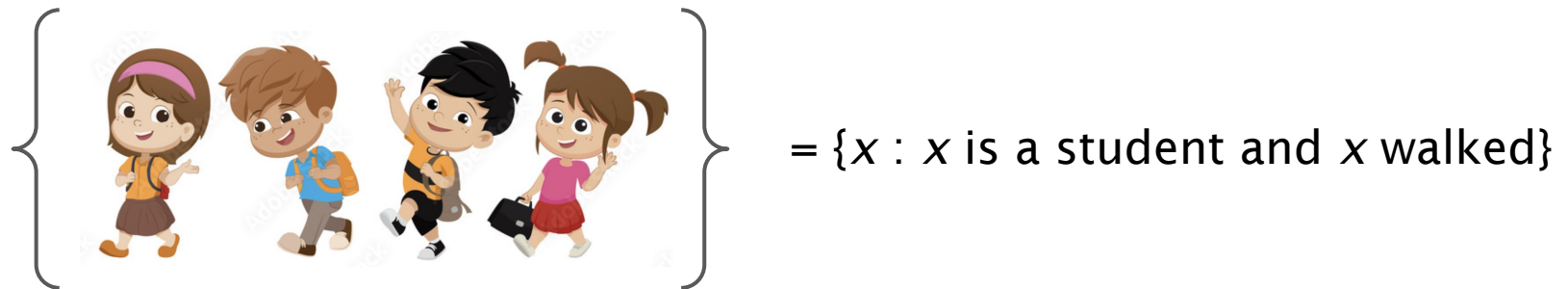
students who walked

Calculating proportions



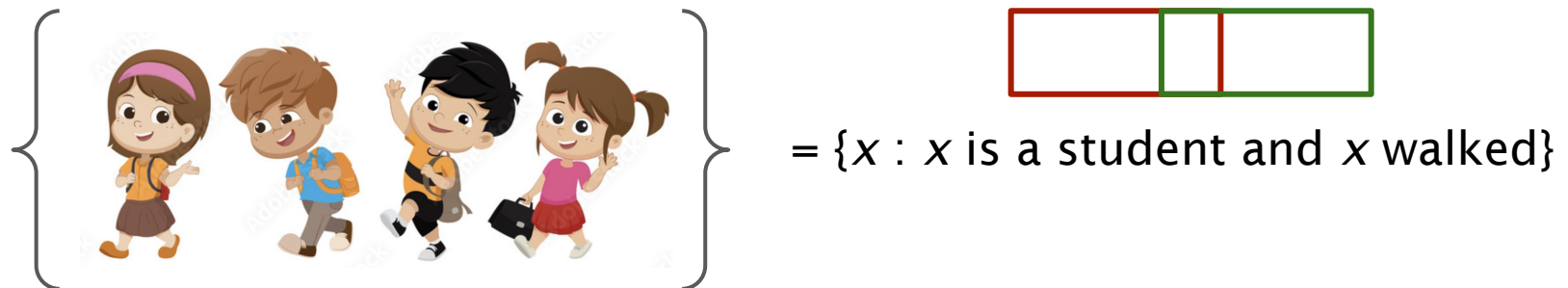
Decomposing the truth condition

14. Most students walked.



Decomposing the truth condition

14. Most



Decomposing the truth condition

14. Most students walked.

NP

VP

$$\frac{|\text{NP-Set} \cap \text{VP-Set}|}{|\text{NP-Set}|} > 0.5$$

“Most” expresses the proportion of VP Set in VP Set

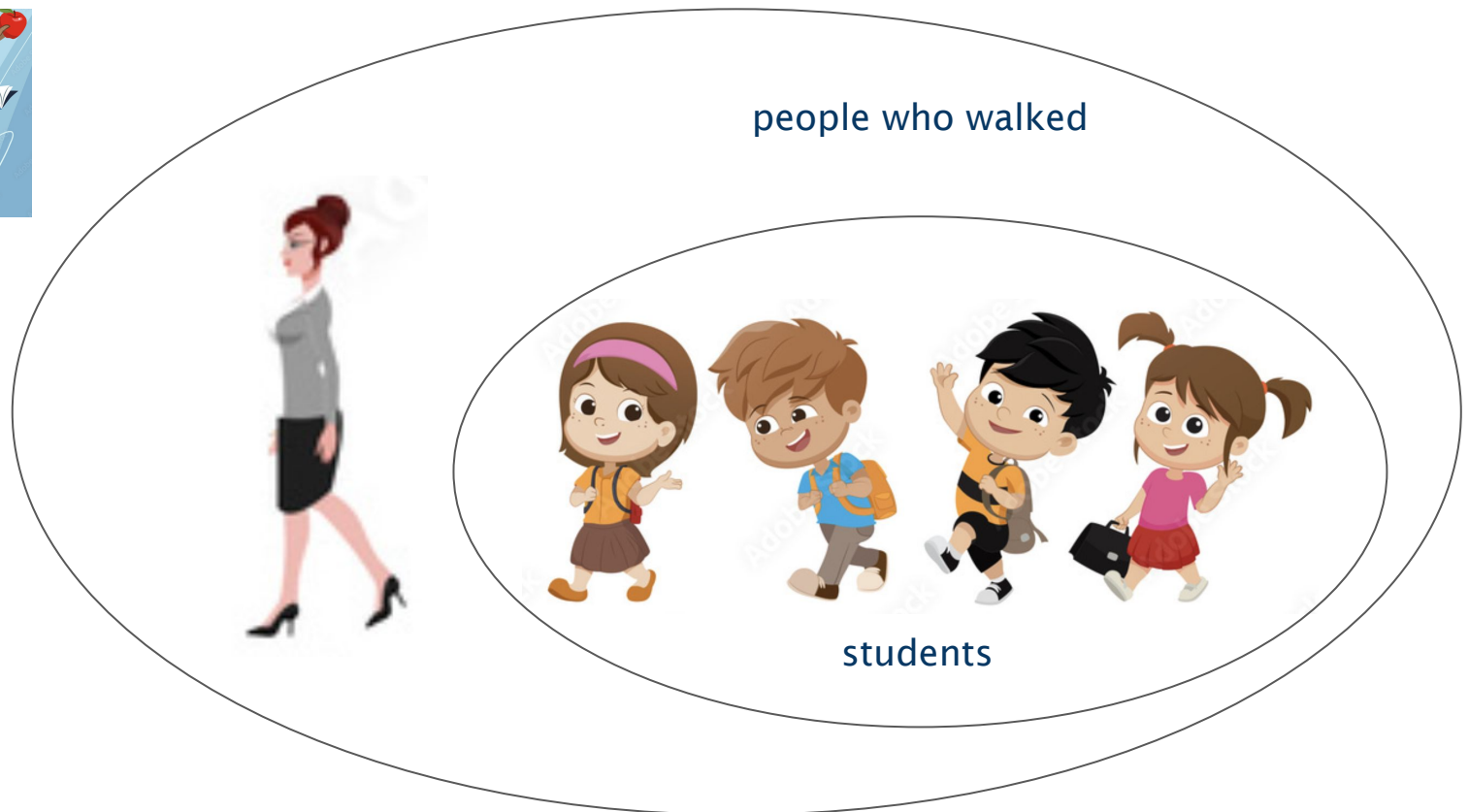
Universal quantifier: 'Every-NP'

15. Every student walked.



Universal quantifier: 'Every-NP'

15. Every student walked.



Universal quantifier: 'Every-NP'

NP VP

15. Every student walked.

NP-Set \subseteq VP-Set



people who walked



students