

## Reading Race

### Solutions



# Two Math Cats

1. Orange is reading the newest edition of Star Cats, *The Catforce Awakens*. So far, he has already read 36 pages in the last 24 minutes. How long will it take him to finish the book if the book has...

$$*24 \text{ minutes} / 36 \text{ pages} = 2/3 \text{ minute to read each page.}$$

a. 90 pages?

$$2 \text{ minutes} / 3 \text{ pages} \times 90 \text{ pages} = \mathbf{60 \text{ minutes.}}$$

b. 120 pages?

$$2 \text{ minutes} / 3 \text{ pages} \times 120 \text{ pages} = \mathbf{80 \text{ minutes}}$$

c. 360 pages?

$$2 \text{ minutes} / 3 \text{ pages} \times 360 \text{ pages} = \mathbf{240 \text{ minutes}}$$

2. Grey is doing endless English homework, where she must write many sentences. So far, she has already written 12 sentences in the past 15 minutes. How many sentences did she have to write if she finished the rest of her homework in...

$$*12 \text{ sentences} / 15 \text{ minutes} = 4/5 \text{ sentences} / \text{minute}$$

a. 15 minutes?

$$4 \text{ sentences} / 5 \text{ minutes} \times 15 \text{ minutes} = 12 \text{ sentences. } 12 + 12 = \mathbf{24 \text{ sentences.}}$$

b. 30 minutes?

$$4 \text{ sentences} / 5 \text{ minutes} \times 30 \text{ minutes} = 24 \text{ sentences. } 12 + 24 = \mathbf{36 \text{ sentences.}}$$

c. 50 minutes?

$$4 \text{ sentences} / 5 \text{ minutes} \times 50 \text{ minutes} = 40 \text{ sentences. } 12 + 40 = \mathbf{52 \text{ sentences.}}$$

3. Orange and Grey have entered a reading race with a few of their friends. Using the information in the table, which friend will have finished reading the 180 page book fastest?

Friend	Time (min)	Pages Read	Total Time
Patches	20	25	$20/25 \times 180 = \mathbf{144 \text{ minutes}}$
Buttercup	36	40	$36/40 \times 180 = \mathbf{162 \text{ minutes}}$
Orange	30	36	$30/36 \times 180 = \mathbf{150 \text{ minutes}}$
Grey	15	18	$15/18 \times 180 = \mathbf{150 \text{ minutes}}$
Smokey	26	30	$26/30 \times 180 = \mathbf{156 \text{ minutes}}$

Answer: **Patches** will finish reading fastest, with a time of **2** hours and **24** minutes.

Bonus: Orange and Grey both have a rate of  $5/6$  minutes / page, and they will tie.