

## Grade 5 – Math

This task requires students to solve a real world problem involving the addition and subtraction of fractions.

### QUESTION:

Mr. Edmunds shared 12 pencils among his four sons as follows:

- Alan received  $\frac{1}{3}$  of the pencils.
- Bill received  $\frac{1}{4}$  of the pencils.
- Carl received more than 1 pencil.
- David received more pencils than Carl.

**PART A:** On the number line, represent the fraction of the total number of pencils that was given to both Alan and Bill combined. Use the buttons on the right to increase or decrease the number of equal sections on the number line. [NOTE: The functionality of buttons in this sample does not work the same as the online version.]

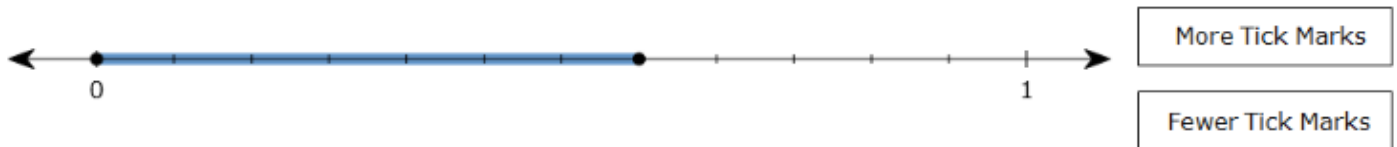


**PART B:** What Fraction of the total number of pencils did Carl and David each receive? Justify your answer.

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**ANSWER:**

**Part A Answer:** The correct answer represents the fraction  $7/12$  on the number line.



$$1/4 + 1/3 = 3/12 + 4/12 = 7/12$$

**Part B Answer:** Alan and Bill receive 7 of the pencils as shown in the answer to Part A, therefore Carl and David received the rest of the 12 pencils. They received  $12 - 7 = 5$  pencils combined. Since David received more pencils than Carl, and Carl received more than 1 pencil, then Carl received 2 pencils and David received 3 pencils. To express these quantities as fractions of the whole, the Carl received  $2/12$  and David received  $3/12$  of the pencils in the box.

Note: Students are not penalized for not writing fractions in lowest terms.