

1. Percentage of group meeting

E.6455   Two sports associations coexist in a school:

- L'association *A* comporte 120 adhérents dont 30 % sont les filles.
- L'association *B* comporte 55 adhérents dont 44 filles.

- 1 Determine the number of girls who have joined the association *A*.

2. Fractions and proportionality

E.1417   

- 1 Give the simplified form of each quotient:

$$\frac{42}{30} ; \frac{35}{25} ; \frac{14}{10}$$

- 2 Consider the table below:

$\times \dots$	30	25	10	$\times \dots$
	42	35	14	

Quotient (ℓ_2/ℓ_1)			
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- a Complete the row of the quotient of the bottom values with the top values. Indicate the simplified form of the quotient.
- b Justify that this table represents a situation of proportionality.
- c Complete the two proportionality coefficients (in the form of a simplified fraction).

E.1451   

- 1 Give the simplified form of each of the quotients:

a $\frac{14}{12}$ b $\frac{35}{30}$ c $\frac{49}{42}$

- 2 Consider the table:

$\times \dots$	14	35	49	$\times \dots$
	12	3	42	

Quotient (ℓ_2/ℓ_1)			
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- a Justify that this table is a table of proportionality.
- b Complete the two coefficients of proportionality with their simplified fractional values.

- 2 Determine the percentage, rounded to the nearest tenth, of girls who have joined a sports association at this school.

E.5647   To make a cocktail for his birthday, Jean mixes 1 ℓ soda with 3 ℓ orange juice.

Knowing that soda contains 30 % sugar and orange juice only 10 %, determine the percentage of sugar in Jean's cocktail.

E.1439    Consider the table below:

$\times \dots$	18	6	15	24	$\times \dots$
	78	26	65	104	

- 1 Justify that the table below represents a situation of proportionality.
- 2 Give the two coefficients of proportionality in this table in the form of simplified fractions.

E.10159    Consider the following table:

$\times \dots$	24	60	108	36	$\times \dots$
	14	35	63	21	

- 1 Show that this table represents a proportionality table.
- 2 Complete the table by indicating the coefficients of proportionality in simplified fraction form.

E.1441    Consider the table below:

$\dots$	70	56	112	42	$\dots$
	30	24	48	18	

- 1 Verify that this table is a proportionality table.

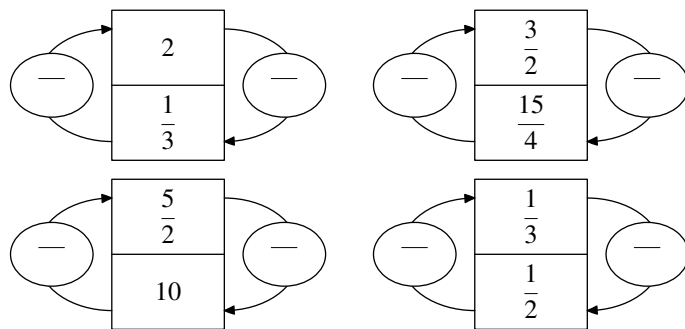
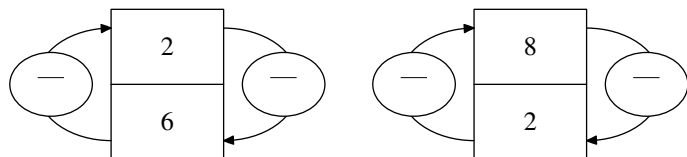
Hint: we'll leave the calculations to justify your answer.

- 2 Complete the table with the proportionality coefficients as fractions.

E.1993   Complete the following table:

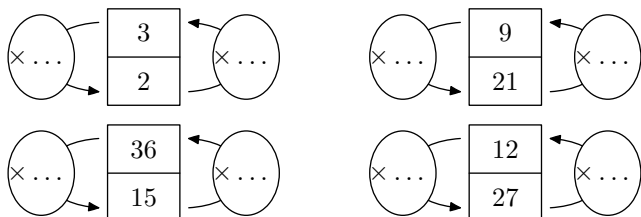
5	$\frac{6}{5}$			$\frac{2}{3}$
		$\frac{4}{3}$	$\frac{2}{9}$	

E.1994   Correctly complete the arrows in each of the following diagrams:

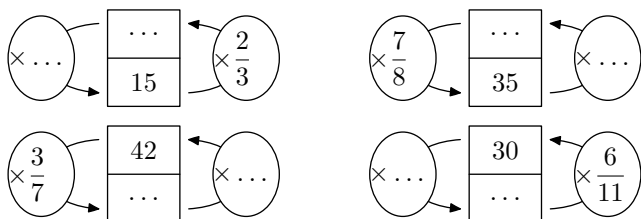


3. Fractions and proportionality coefficient

E.1438   For each of the tables below, enter the proportionality coefficients in the form of a simplified fraction:



E.11002   Complete the proportionality tables:



Hint: start by completing the two proportionality coefficients.

E.1447  

① Perform the following calculations. Remember to simplify your results:

a) $35 \times \frac{9}{7}$ b) $56 \times \frac{9}{7}$ c) $63 \times \frac{7}{9}$ d) $81 \times \frac{7}{9}$

② Complete the proportionality table below:

$\times \dots$	14	35	56			$\times \dots$
	18			63	81	

E.11000  

① Simplify the following two fractions:

$\frac{63}{27}$; $\frac{27}{63}$

② Fill in the proportionality coefficients in the table, then fill in the values in the table.

$\times \dots$			42	56	63	$\times \dots$
	9	15			27	

E.1453  

Consider the table of proportionality below:

$\times ?$	3	1		4		$\times ?$
	2,1		14		16,1	

Complete the table by indicating the coefficients of proportionality in the form of fractions simplified to the maximum extent possible.

E.10160   

Consider the table of proportionality below:

$\times ?$	11		55	1		$\times ?$
	3	$\frac{9}{2}$			3,3	

Complete the table by indicating the coefficients of proportionality in the form of fractions simplified to the maximum extent possible.

E.11018  

Consider the proportionality table:

$\times \dots$	12		42		90	$\times \dots$
	14	35		77		

① Fill in the proportionality coefficients in the form of a simplified fraction.

② Complete the proportionality table.

E.10148   Using the horizontal displacements, complete the proportionality table below:

11			55	1	
3	1	4			$\frac{12}{11}$

Hint: fractions can be used to complete the table.