

REMEMBER WHAT YOU KNOW

1st GCSE – Maths (Activities for the beginning of the school year)



ACTIVIDADES DEL COMIENZO DEL CURSO 1º E.S.O. – MATEMÁTICAS

RECUERDA LO QUE SABES

 MODESTO NAVARRO	Name and surnames:	Class:	
	Date (Fecha de realización de las actividades):		

1st - Do these operations:

$$\begin{array}{r} 358739 \\ + 839405 \\ \hline \end{array}$$

$$\begin{array}{r} 680431 \\ + 257942 \\ \hline \end{array}$$

$$\begin{array}{r} 2490485 \\ - 1085804 \\ \hline \end{array}$$

$$\begin{array}{r} 574906 \\ - 397472 \\ \hline \end{array}$$

$$\begin{array}{r} 735041 \\ \times 85 \\ \hline \end{array}$$

$$\begin{array}{r} 638536 \\ \times 486 \\ \hline \end{array}$$

$$2857 \quad | \quad 23$$

$$5673 \quad | \quad 704$$

2nd - Do these operations:

a) $35 - (16 + 9) - 3 =$

b) $3 \cdot 4 + 12 : 6 =$

c) $9 \cdot 6 - 12 + 12 \cdot 3 =$



REMEMBER WHAT YOU KNOW

1º E.S.O. – Maths (Activities for the beginning of the school year)

d) $4 + 21 \cdot 2 - (7 + 8) - 12 : 2 =$

e) $(324 - 188) : 8 =$

f) $(37 + 48 - 54) \cdot 16 =$

g) $7 \cdot (4 + 3) - [6 : (2 + 1)] + 6 =$

h) $4620 : (43 + 21 - 34) =$

3rd – Do these operations:

a) $24,35 + 26,8 =$

b) $225,6 - 51,24 =$

c) $1,132 \cdot 2,34 =$

d) $751,63 : 24 =$

4th – Do these operations:

a) $\frac{3}{6} + \frac{5}{6} + \frac{8}{6} =$

e) $\frac{5}{6} \cdot \frac{8}{9} =$

b) $\frac{13}{10} - \frac{5}{10} =$

f) $\frac{9}{7} \cdot 2 =$

c) $\frac{12}{6} + \frac{8}{12} + \frac{7}{8} =$

g) $\frac{6}{5} : \frac{12}{6} =$

d) $\frac{13}{8} - \frac{5}{4} =$

h) $4 : \frac{3}{5} =$



5th - Decompose these numbers into their prime factors
(=descompón en factores primos):

4080

6930

1428

4080 =

6930 =

1428 =

6th - Find the GCF (Greatest Common Factor) and the lcm (lowest common multiple) of
12, 36, 72

7th - Write an equivalent fraction whose terms are smaller and another whose terms are
bigger than each of the following:

(Escribe una fracción equivalente cuyos términos sean menores y otra que sean
mayores a cada una de las siguientes):

$$- = \frac{4}{8} = -$$

$$- = \frac{18}{16} = -$$

$$- = \frac{12}{16} = -$$

$$- = \frac{40}{45} = -$$

8th - What fraction is expressed by ...?

a) 6 days in a week:

e) 15 hours in a day:

b) 25 minutes in an hour:

f) 11 years in a century:

c) 3 months in a year:

g) 22 días en 3 quincenas¹:

d) 14 seconds in a minute:

h) 2 years in a decade:

¹ In English the word "fortnight" refers to 14 days, but in Spanish "una quincena" are fifteen days.



9th - Transform these Metric System units:

- a) 8 km = _____ m
- b) 90 cl = _____ l
- c) 36 mm = _____ cm
- d) 15 g = _____ mg

10th - Transform the time units in this chart:

a)	20 years	_____ decades	d)	35 days	_____ weeks
b)	3 days	_____ hours	e)	3 minutes	_____ seconds
c)	500 years	_____ centuries	f)	36 months	_____ years

11th - Solve these problems:

- a) A man has 1,800 euros. He spends $\frac{4}{6}$ on a TV. How much money has he got left?

(Un señor tiene 1.800 euros. Gasta los $\frac{4}{6}$ en un televisor. ¿Cuánto dinero le queda?)

- b) If I duplicate number 12,425 and add $\frac{3}{5}$ of number 52,480, what number will I get?
(Si duplico el número 12.425 y le sumo los $\frac{3}{5}$ del número 52.480, ¿cuál será el número que resulte?)



- c) A collection of fascicules consists of 120 issues. The price of the first ten instalments together is € 6.50, and the price of the rest is € 1.40 each. What is the cost of the whole collection? What would be the cost of the whole collection, if they gave away two for free for every twenty instalments?

(Una colección de fascículos consta de 120 números. El precio de los diez primeros juntos es de 6,50 €, y el precio de los restantes es de 1,40 € cada uno. ¿Cuál es el importe de toda la colección? ¿Cuál sería el importe de toda la colección, si cada veinte fascículos comprados regalasen dos?)

- d) A bookshop owner has bought 80 books. He sells $\frac{5}{8}$ of them for € 10.50 each, and the rest for € 12 each. This way he earns a profit of € 305.80. How much had the books cost him?

(Un librero ha comprado 80 libros. Vende los $\frac{5}{8}$ a 10,50 € cada uno, y los restantes a 12 € cada uno. Obtiene así una ganancia de 305,80 € ¿Cuánto le habían costado los libros?)

- e) Felix has travelled all over the world, and he has visited a total of sixty countries. Of them, 15% are in Asia, 35% are in Europe, 20% are in America and the rest are in Africa. How many countries has he visited in each continent?

(Félix ha viajado por todo el mundo y ha visitado un total de 60 países. De ellos, el 15 % son de Asia, el 35 % de Europa, el 20 % de América y el resto de África. ¿Cuántos países ha visitado de cada continente?)



- f) At home we buy a TV set for € 1,504 and we pay $\frac{1}{4}$ in cash and the rest in 6 instalments. How much is each instalment?

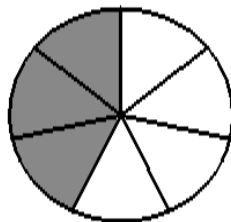
(En mi casa compramos un televisor por 1.504 € y pagamos $\frac{1}{4}$ al contado y el resto en 6 plazos. ¿Cuál será el importe de cada plazo?)

- g) My father has gone to do the shopping at the supermarket. He has bought $\frac{1}{4}$ Kg of cheese for € 8 a kilo, 3 Kg of oranges for € 1.5 a kilo, and $\frac{1}{2}$ Kg of meat for € 11 a kilo. How much has he paid for everything? How many grams does the shopping bag weigh?

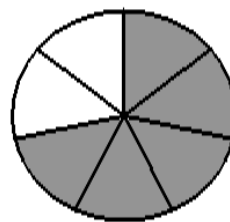
(Mi padre ha ido a hacer la compra al supermercado. Ha comprado $\frac{1}{4}$ kg de queso a 8 € el kg, 3 kg de naranjas a 1,5 € el kg y $\frac{1}{2}$ kg de carne a 11 € el kg. ¿Cuánto le ha costado toda la compra? ¿Cuántos "g" pesa la compra?)

- h) On her birthday, Lucy has shared out the shaded areas in the strawberry and chocolate tarts below. Write under each tart the fraction that the shaded area represents. If she invited fifteen friends and $\frac{1}{3}$ were boys, how many boys and how many girls attended her party?

(Lucía ha repartido en su cumpleaños las partes sombreadas de las tartas de fresa y de chocolate. Escribe debajo de cada tarta la fracción que representa la parte sombreada. Si invitó a quince amigos y amigas y $\frac{1}{3}$ eran chicos. ¿Cuántos chicos asistieron a su fiesta? ¿y cuántas chicas?)

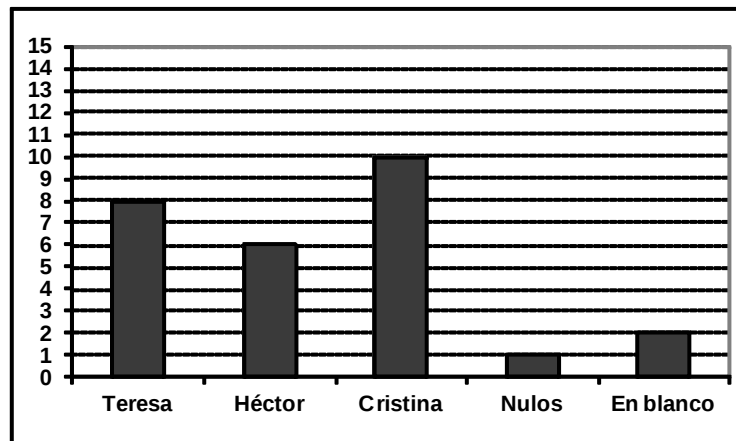


STRAWBERRY



CHOCOLATE

- i) Theresa, Hector and Christine volunteered as candidates for the class representative
(*Teresa, Héctor y Cristina se presentaron como candidatos/as en la elección de delegado/a de clase.*)



Look at the graph and write down how many votes each of them obtained.
(*Fíjate en la gráfica e indica cuántos votos obtuvieron cada uno de ellos?*)

Theresa _____ votes
Hector _____ votes
Christine _____ votes

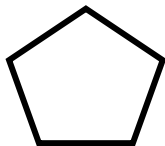
How many kids didn't vote for any of the three candidates?
(*¿Cuántos niños/as no votaron a alguno de los tres candidatos?*)

If they all took part, how many students were there in the class?
(*Si todos participaron, cuántos compañeros/as había en clase en total?*)

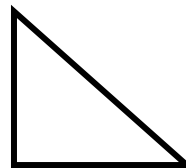
Who was elected as the class representative?
(*¿Quién ha sido elegido/a delegado/a?*)

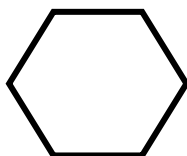


12th - Write the name under each polygon:









Some polygons (in alphabetical order):
hexagon
heptagon
pentagon
rectangle
rhombus
square
trapeze
triangle

13th - Match each polygon with the formula to calculate its surface area.

Polygons		Calculating areas
Square		$\text{base} \cdot \text{height}^1$
Trapeze		$\text{side} \cdot \text{side}^1$
Triangle		$\frac{\text{large diagonal} \cdot \text{small diagonal}}{2}$
Rhombus		$\frac{\text{addition of both bases} \cdot \text{height}}{2}$
Rectangle		$\frac{\text{base} \cdot \text{height}}{2}$

¹ height = altura; width = anchura; side = lado

14th - Solve these problems:

a) Calculate the area of a square with a perimeter of 100 cm.

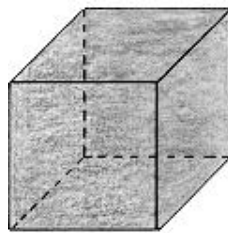
- b) A rectangular garden measuring 60m long and 20m wide is surrounded with a wire fence, which costs € 42 a metre. How much does the fence cost?

(Se rodea un jardín rectangular de 60 m de largo y 20 de ancho con una alambrada, que cuesta a 42 € el metro. ¿Cuánto cuesta la alambrada?)

- c) Calculate the area of a triangle whose base is 6 cm and whose height is 8 cm.

15th - Look at these geometric shapes in three dimensions, match them with their names and complete their descriptions.

hexagonal prism

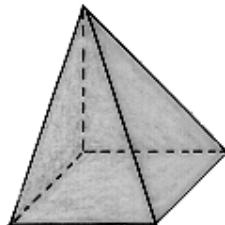


Nº of vertexes: _____

Nº of faces: _____

Name of the base figure: _____

regular
tetrahedron

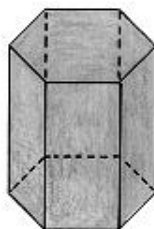


Nº of vertexes: _____

Nº of sides: _____

Name of the base figure: _____

cube

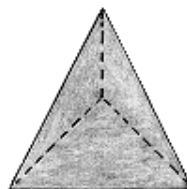


Nº of vertexes: _____

Nº of faces: _____

Name of the base figure: _____

square pyramid



Nº of vertexes: _____

Nº of sides: _____

Name of the base figure: _____