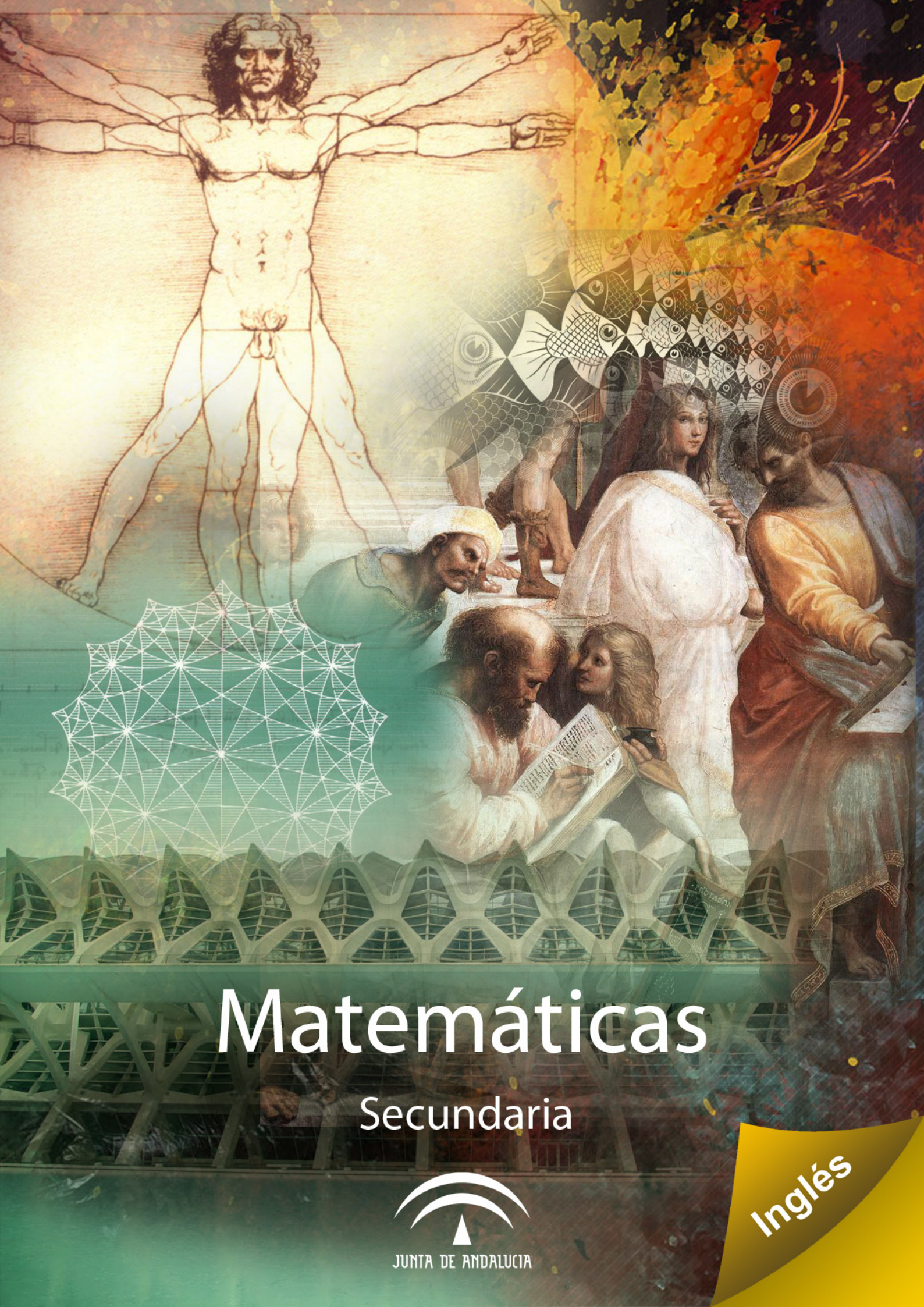
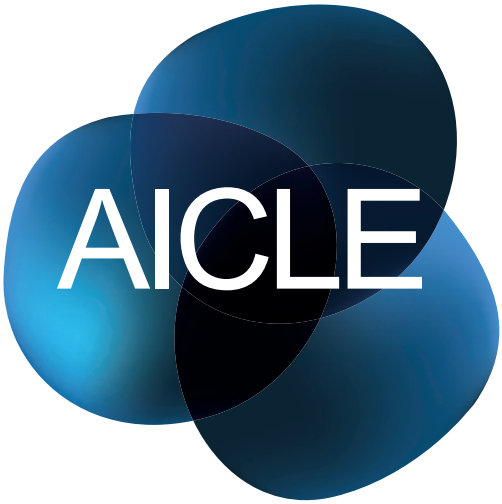


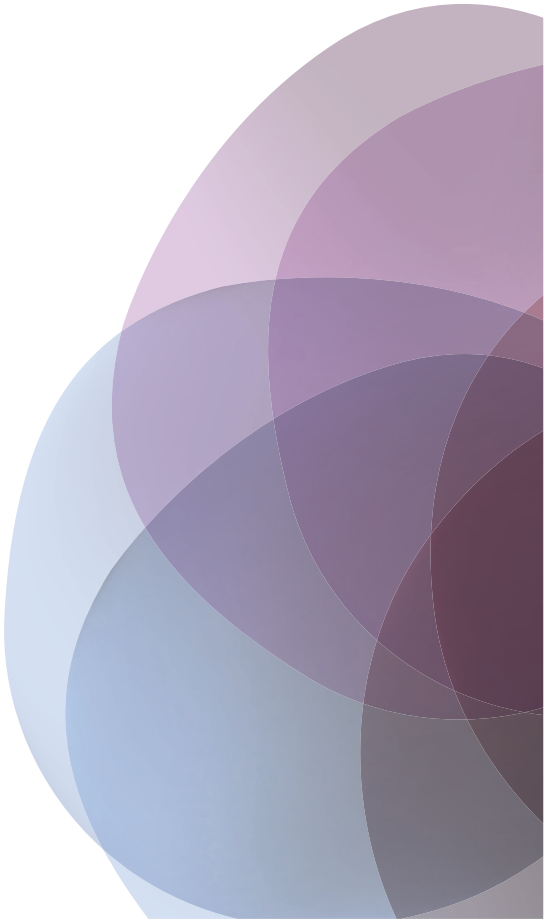
# Matemáticas

## Secundaria

Inglés

JUNTA DE ANDALUCIA



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# THE METRIC SYSTEM

# - Key -

**1.**

measurement
on any ruler or tape measure
types of measurement
English System
time
Each method of unit conversion has advantages and disadvantages
a common mistake

**2.**

**Down**

1. meter
2 gram
4. square-meter
5. liter
6. milligram

**Across**

3. centimeter
7. cubic-meter
8. square-centimeter
9. inch
10. kiloliter

**3.**

| Prefix | Multiply by |
|---|---|
| milli- | 0.001 |
| centi- | 0.01 |
| deci- | 0.1 |
| deka- | 10 |
| hecto- | 100 |
| kilo- | 1000 |

| AREAS | |
|---|---|
| **Prefix** | **Multiply by** |
| milli- | 0.0001 |
| centi- | 0.01 |
| deci- | 1000000 |
| deka- | 0.000001 |
| hecto- | 10000 |
| kilo- | 100 |

| VOLUMES | |
|---|---|
| **Prefix** | **Multiply by** |
| milli- | 1000000000 |
| centi- | 0.000001 |
| deci- | 0.000000001 |
| deka- | 0.001 |
| hecto- | 1000000 |
| kilo- | 1000 |

**5.**

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| T | + | + | + | + | S | + | + | + | F | + | S | + | + | + |
| + | A | + | + | D | + | E | + | A | + | + | E | + | + | + |
| + | + | B | N | + | + | + | H | + | + | + | C | + | + | + |
| + | + | U | L | + | + | R | + | C | + | + | N | + | + | + |
| + | O | + | + | E | E | + | + | Y | N | + | U | + | S | M |
| P | + | + | + | N | S | + | + | + | A | I | O | + | H | I |
| + | + | + | H | + | + | P | Q | U | A | R | T | S | O | L |
| + | + | E | + | + | S | + | O | + | + | + | D | P | R | E |
| + | I | T | E | E | F | P | + | O | + | + | I | S | T | S |
| T | + | + | + | + | + | + | U | + | N | N | + | + | T | + |
| + | S | N | O | L | L | A | G | C | T | S | + | + | O | + |
| + | + | + | + | + | + | + | + | S | + | + | + | + | N | + |
| + | + | + | + | + | + | + | + | + | + | + | + | + | S | + |
| + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| F | L | U | I | D | O | U | N | C | E | S | + | + | + | + |

**6.**

• The official name is the International System of Units. Its abbreviation is SI

• The metric system consists of seven base units: meter (m); kilogram (kg); second (s); Kelvin (K); ampere (A); mole (mol); and candela (cd).

• The centimeter (cm) is preferred for measuring clothing and body measurements.

• 1 US quart = 946.4 milliliters, so a liter is larger than a quart in 53.6 ml.

• The metric system prefix for one-millionth is milli-

• Mass is the quantity of matter, measured in kilograms (kg). In everyday language, mass is usually called “weight“, as in “my weight is 68 kg” or “I weigh 68 kg. “ However, in correct scientific language, the word weight is reserved for the force of gravity, which is measured in newtons (N).

**7.**

decimal system
multiples
distance
meter
space
liter
weight
grams

**8.**

**1.** 92 cm 1 mm = 921 mm
**2.** 61 cm = 610 mm
**3.** 51 cm = 510 mm
**4.** 2 mm 735 m = 735002 mm
**5.** 70 mm = 7 cm
**6.** 73 cm 10 mm = 74 cm
**7.** 946 m 6 km = 694600 cm
**8.** 317 m = 317000 cm
**9.** 7 km = 7000 m
**10.** 79 m 300 cm = 82 m
**11.** 12 km = 12000 m
**12.** 9800 cm 872 m = 970 m
**13.** 800 m = 0.8 km
**14.** 38 km 8000 m = 46 km
**15.** 12000 m = 12 km
**16.** 3000 m 243 km = 246 km
**17.** 8389 cm 9000 mm = 92 m 89 cm
**18.** 1109 cm = 11 m 9 cm
**19.** 727 m 1554 cm = 742 m 54 cm
**20.** 2238 cm = 22 m 38 cm

**9.**

**1.** 58 cl = 580 ml
**2.** 2 ml 75 cl = 825 ml
**3.** 21 cl = 210 ml
**4.** 3 ml 8 l = 8003 ml
**5.** 70 ml = 7 cl
**6.** 30 ml 6 cl = 9 cl
**7.** 1 kl 110 l = 111000 cl
**8.** 80 ml = 8 cl
**9.** 6100 cl 723 l = 784 l
**10.** 10000 ml = 10 l
**11.** 10 kl = 10000 l
**12.** 11 kl 11000 ml = 11011 l
**13.** 12000 l = 12 kl
**14.** 5000 l 491 kl = 496 kl
**15.** 7000 l = 7 kl
**16.** 2000 l 70 kl = 72 kl
**17.** 10000 ml 5050 cl = 60 l 0 cl
**18.** 7404 cl = 74 l 4 cl
**19.** 9000 ml 4884 cl = 57 l 84 cl
**20.** 2522 cl = 25 l 22 cl

**10.**

**1.** 76 cg 3 mg = 763 mg
**2.** 83 cg = 830 mg
**3.** 9 cg 976 g = 976090 mg
**4.** 32 cg = 320 mg
**5.** 90 mg 34 cg = 43 cg
**6.** 80 mg = 8 cg
**7.** 266 g 9 kg = 96600 cg
**8.** 3 kg = 300000 cg
**9.** 8000 mg = 8 g
**10.** 611 g 6,000 mg = 617 g
**11.** 696 g 8000 mg = 8696 g
**12.** 200 cg = 2 g
**13.** 3000 g = 3 kg
**14.** 673 kg 9000 g = 682 kg
**15.** 12000 g = 12 kg
**16.** 567 kg 5000 g = 572 kg
**17.** 6642 cg 5000 mg = 71 g 42 cg
**18.** 5556 cg = 55 g 56 cg
**19.** 265 cg 642 g = 644 g 65 cg
**20.** 7645 cg = 76 g 45 cg

**11.**

**1)** Kilogram kg
**2)** Meter m
**3)** Gram g
**4)** Milliliter ml
**5)** Millimeter mm
**6)** Liter l
**7)** Kilometer km
**8)** Centimeter cm
**9)** Milligram mg

**12.**

**1.** 2 g
**2.** 104000 m
**3.** 4.8 m
**4.** 5600 g
**5.** 0.8 cm
**6.** 5000 ml
**7.** 0.198 kg
**8.** 0.075 l
**9.** 0.5 m
**10.** 560 cm
**11.** 160 mm
**12.** 2.5 km
**13.** 65000 mg
**14.** 63 mm
**15.** 0.12 g

**13.**

**16.** <
**17.** >
**18.** =
**19.** =
**20.** <
**21.** >

**14.**

**483 cl + 26761 cl + 3057 ml ___<____ 49 l + 2087 kl + 371 l**
**4111 m + 5931 m + 32 mm + 4916 m ___<____ 195 km + 52 km + 3 cm + 689 km**
**52 mg + 276 cg + 3881 g ___<____ 7 cg + 46 g + 350 kg**
**10 cm + 895 km + 442 km ___>____ 51 mm + 4956 m + 2109 m**

**15.**

**a) 25.4 $Km^2$ =** 25400000 $m^2$
**b) 34000 $dm^2$ =** 3.4 $m^2$
**c) 157530 $cm^2$ =** 0.15753 $m^2$
**d) 2.4 $Hm^2$ =** 24000 $m^2$
**e) 2 $Dam^2$ =** 200 $m^2$
**f) 234971 $mm^2$ =** 0.234971 $m^2$

**16.**

**a) 3 $Dam^3$ =** 3000 $m^3$
**b) 0.5 $Hm^3$ =** 500000 $m^3$
**c) 0.004 $Km^3$ =** 4000000 $m^3$
**d) 5 $dm^3$ =** 0.005 $m^3$
**e) 450 $cm^3$ =** 0.00045 $m^3$

**17.**

**a)** To convert each measure into liters,
**66 cm3 =** 0.066 **l**
**14 $cm^3$ =** 0.014 **l**
**192 $cm^3$ 1 $mm^3$ =** 0.192001 **l**
**5 $mm^3$ 735 $m^3$ =** 735.000005 **l**

**b)** To convert each measure to capacity,
**270 $mm^3$ =** 0.0027 **cl**
**3107 $m^3$ =** 31070 **hl**
**73 $cm^3$ 210 $mm^3$ =** 0.7321 **dl**
**96 $m^3$ 6 $km^3$ =** 6000000096000 **l**

**c)** To convert each measure to volume.
**7 kl = 0.**000007 **$hm^3$**
**79139000 cl=** 791.39 **$cm^3$**
**12 kl =** 12000000 **$m^3$**
**980 cl 872 l =** 881.8 **$dm^3$**

**19.**

**a)** 265 and seven tenths kilograms
**b)** 12300 $cm^2$
**c)** 3010 m
**d)** 15.75 kg
**e)** 1.248 l
**f)** $0.79
**g)** 48.9 kg
**h)** 7 l
**i)** $232.98
**j)** 4ºC

**22.**

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 14 1 | | | | 26 5 | 5 | . | 13 4 | | 29 - | 7 3 | |
| | 21 2 | 9 6 | . | 6 | | | | 1 | | | 3 | |
| 2 - | | | | | | 8 - | | | 12 6 | | | 11 - |
| 8 | | | 27 1 | 18 5 | | 24 1 | 9 | | 25 8 | 17 2 | . | 4 |
| | 6 1 | 0 | | | | 1 | | | | 0 | | |
| | 2 | | | | 16 5 | | 4 1 | | 19 2 | | | 15 - |
| | 2 | | | 3 3 | 9 | . | 2 | | 22 9 | 1 3 | . | 2 |
| 10 - | | 5 2 | | 4 | | | . | | | 31 2 | | |
| 5 | | 23 1 | 7 | | | | 30 2 | 4 | | | 28 7 | 20 7 |