

EJERCICIO 105

Realiza las siguientes conversiones:

- | | | | |
|------------|----------|---------------|----------|
| 1. 8 m | _____ dm | 7. 170 005 km | _____ Dm |
| 2. 15 Dm | _____ cm | 8. 54 Hm | _____ m |
| 3. 7.05 Hm | _____ dm | 9. 0.806 dm | _____ cm |
| 4. 19 mm | _____ m | 10. 16.50 km | _____ Hm |
| 5. 185 cm | _____ dm | 11. 380 Dm | _____ km |
| 6. 9 cm | _____ dm | 12. 6 300 m | _____ dm |

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CAP

Sistema métrico decimal y números deno

- | | | | |
|-------------|----------|---------------|----------|
| 13. 380 Hm | _____ km | 17. 3.016 m | _____ mm |
| 14. 900 m | _____ Hm | 18. 0.85 m | _____ mm |
| 15. 600 cm | _____ m | 19. 15.480 km | _____ m |
| 16. 45.63 m | _____ cm | 20. 75.6 Dm | _____ m |

Verifica tus resultados en la sección de soluciones correspondiente

- | | | |
|----|------------|----------|
| 1 | 8 m | _____ dm |
| 2 | 15 Dm | _____ cm |
| 3 | 7.05 Hm | _____ dm |
| 4 | 19 mm | _____ m |
| 5 | 185 cm | _____ dm |
| 6 | 9 cm | _____ dm |
| 7 | 170,005 km | _____ Dm |
| 8 | 54 Hm | _____ m |
| 9 | 0.806 dm | _____ cm |
| 10 | 16.50 km | _____ Hm |
| 11 | 380 Dm | _____ km |
| 12 | 6,300 m | _____ dm |
| 13 | 380 Hm | _____ km |
| 14 | 900 m | _____ Hm |
| 15 | 600 cm | _____ m |
| 16 | 45.63 m | _____ cm |
| 17 | 3.016 m | _____ mm |
| 18 | 0.85 m | _____ mm |
| 19 | 15.48 km | _____ m |
| 20 | 75.6 Dm | _____ m |

Prefijos para potencias de 10

Prefijo	Potencia de 10	Abreviatura
1 yocto-	10^{-24}	y
2 zepto-	10^{-21}	z
3 atto-	10^{-18}	a
4 femto-	10^{-15}	f
5 pico-	10^{-12}	p
6 nano-	10^{-9}	n
7 micro-	10^{-6}	μ
8 mili-	10^{-3}	m
9 deci-	10^{-1}	d
10 deca-	10^1	da
11 hecto-	10^2	h
12 centi-	10^{-2}	c
13 kilo-	10^3	k
14 mega-	10^6	M
15 giga-	10^9	G
16 tera-	10^{12}	T
17 peta-	10^{15}	P
18 exa-	10^{18}	E
19 zetta-	10^{21}	Z
20 yotta-	10^{24}	Y

10^1 D
 10^2 H

EJERCICIO 105

Realiza las siguientes conversiones:

- | | | | |
|------------|----------|---------------|----------|
| 1. 8 m | _____ dm | 7. 170 005 km | _____ Dm |
| 2. 15 Dm | _____ cm | 8. 54 Hm | _____ m |
| 3. 7,05 Hm | _____ dm | 9. 0,806 dm | _____ cm |
| 4. 19 mm | _____ m | 10. 16,50 km | _____ Hm |
| 5. 185 cm | _____ dm | 11. 380 Dm | _____ km |
| 6. 9 cm | _____ dm | 12. 6 300 m | _____ dm |

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CAP

Sistema métrico decimal y números decimales

- | | | | |
|-------------|----------|---------------|----------|
| 13. 380 Hm | _____ km | 17. 3,016 m | _____ mm |
| 14. 900 m | _____ Hm | 18. 0,85 m | _____ mm |
| 15. 600 cm | _____ m | 19. 15,480 km | _____ m |
| 16. 45,63 m | _____ cm | 20. 75,6 Dm | _____ m |

Verifica tus resultados en la sección de soluciones correspondiente

- | | | |
|----|------------|----------|
| 1 | 8 m | _____ dm |
| 2 | 15 Dm | _____ cm |
| 3 | 7,05 Hm | _____ dm |
| 4 | 19 mm | _____ m |
| 5 | 185 cm | _____ dm |
| 6 | 9 cm | _____ dm |
| 7 | 170,005 km | _____ Dm |
| 8 | 54 Hm | _____ m |
| 9 | 0,806 dm | _____ cm |
| 10 | 16,50 km | _____ Hm |
| 11 | 380 Dm | _____ km |
| 12 | 6,300 m | _____ dm |
| 13 | 380 Hm | _____ km |
| 14 | 900 m | _____ Hm |
| 15 | 600 cm | _____ m |
| 16 | 45,63 m | _____ cm |
| 17 | 3,016 m | _____ mm |
| 18 | 0,85 m | _____ mm |
| 19 | 15,48 km | _____ m |
| 20 | 75,6 Dm | _____ m |

Prefijos para potencias de 10

Prefijo	Potencia de 10	Abreviatura
1 yocto-	10^{-24}	y
2 zepto-	10^{-21}	z
3 atto-	10^{-18}	a
4 femto-	10^{-15}	f
5 pico-	10^{-12}	p
6 nano-	10^{-9}	n
7 micro-	10^{-6}	μ
8 mili-	10^{-3}	m
9 deci-	10^{-1}	d
10 deca-	10^1	da
11 hecto-	10^2	h
12 centi-	10^{-2}	c
13 kilo-	10^3	k
14 mega-	10^6	M
15 giga-	10^9	G
16 tera-	10^{12}	T
17 peta-	10^{15}	P
18 exa-	10^{18}	E
19 zetta-	10^{21}	Z
20 yotta-	10^{24}	Y

Interpretación

Unidad de ejemplo	m
Relación	
1 ym	= 10^{-24} m
1 zm	= 10^{-21} m
1 am	= 10^{-18} m
1 fm	= 10^{-15} m
1 pm	= 10^{-12} m
1 nm	= 10^{-9} m
1 μ m	= 10^{-6} m
1 mm	= 10^{-3} m
1 dm	= 10^{-1} m
1 dam	= 10^1 m
1 hm	= 10^2 m
1 cm	= 10^{-2} m
1 km	= 10^3 m
1 Mm	= 10^6 m
1 Gm	= 10^9 m
1 Tm	= 10^{12} m
1 Pm	= 10^{15} m
1 Em	= 10^{18} m
1 Zm	= 10^{21} m
1 Ym	= 10^{24} m

EJERCICIO 105

Realiza las siguientes conversiones:

- | | | | |
|------------|----------|---------------|----------|
| 1. 8 m | _____ dm | 7. 170 005 km | _____ Dm |
| 2. 15 Dm | _____ cm | 8. 54 Hm | _____ m |
| 3. 7.05 Hm | _____ dm | 9. 0.806 dm | _____ cm |
| 4. 19 mm | _____ m | 10. 16.50 km | _____ Hm |
| 5. 185 cm | _____ dm | 11. 380 Dm | _____ km |
| 6. 9 cm | _____ dm | 12. 6 300 m | _____ dm |

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CAP

Sistema métrico decimal y números denari

- | | | | |
|-------------|----------|---------------|----------|
| 13. 380 Hm | _____ km | 17. 3.016 m | _____ mm |
| 14. 900 m | _____ Hm | 18. 0.85 m | _____ mm |
| 15. 600 cm | _____ m | 19. 15.480 km | _____ m |
| 16. 45.63 m | _____ cm | 20. 75.6 Dm | _____ m |

Verifica tus resultados en la sección de soluciones correspondiente

- | | | |
|----|------------|----------|
| 1 | 8 m | _____ dm |
| 2 | 15 Dm | _____ cm |
| 3 | 7.05 Hm | _____ dm |
| 4 | 19 mm | _____ m |
| 5 | 185 cm | _____ dm |
| 6 | 9 cm | _____ dm |
| 7 | 170,005 km | _____ Dm |
| 8 | 54 Hm | _____ m |
| 9 | 0.806 dm | _____ cm |
| 10 | 16.50 km | _____ Hm |
| 11 | 380 Dm | _____ km |
| 12 | 6,300 m | _____ dm |
| 13 | 380 Hm | _____ km |
| 14 | 900 m | _____ Hm |
| 15 | 600 cm | _____ m |
| 16 | 45.63 m | _____ cm |
| 17 | 3.016 m | _____ mm |
| 18 | 0.85 m | _____ mm |
| 19 | 15.48 km | _____ m |
| 20 | 75.6 Dm | _____ m |

Prefijos para potencias de 10

Prefijo	Potencia de 10	Abreviatura
1 yocto-	10^{-24}	y
2 zepto-	10^{-21}	z
3 atto-	10^{-18}	a
4 femto-	10^{-15}	f
5 piko-	10^{-12}	p
6 nano-	10^{-9}	n
7 micro-	10^{-6}	µ
8 mili-	10^{-3}	m
9 deci-	10^{-1}	d
10 deca-	10^1	da
11 hecto-	10^2	h
12 centi-	10^{-2}	c
13 kilo-	10^3	k
14 mega-	10^6	M
15 giga-	10^9	G
16 tera-	10^{12}	T
17 peta-	10^{15}	P
18 esa-	10^{18}	E
19 zetta-	10^{21}	Z
20 yotta-	10^{24}	Y

Interpretación

Unidad de ejemplo: m	Abreviatura
1 ym = 10^{-24} m	ym
1 zm = 10^{-21} m	zm
1 am = 10^{-18} m	am
1 fm = 10^{-15} m	fm
1 pm = 10^{-12} m	pm
1 nm = 10^{-9} m	nm
1 µm = 10^{-6} m	µm
1 mm = 10^{-3} m	mm
1 dm = 10^{-1} m	dm
1 dam = 10^1 m	dam
1 hm = 10^2 m	hm
1 cm = 10^{-2} m	cm
1 km = 10^3 m	km
1 Mm = 10^6 m	Mm
1 Gm = 10^9 m	Gm
1 Tm = 10^{12} m	Tm
1 Pm = 10^{15} m	Pm
1 Em = 10^{18} m	Em
1 Zm = 10^{21} m	Zm
1 Ym = 10^{24} m	Ym

EJERCICIO 105

- Realiza las siguientes conversiones:
- 8 km _____ dm
 - 15 Dm _____ cm
 - 7.05 Hm _____ dm
 - 19 mm _____ m
 - 185 cm _____ dm
 - 9 cm _____ dm
 - 170.005 km _____ Dm
 - 54 Hm _____ m
 - 0.806 dm _____ Hm
 - 16.50 km _____ Hm
 - 380 Dm _____ km
 - 6.300 m _____ dm

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Sistema métrico decimal y sistema dual

13.380 Hm	_____ km	17.3.016 m	_____ mm
14.900 m	_____ Hm	18.085 m	_____ mm
15.600 cm	_____ m	19.15.480 km	_____ m
16.45.63 m	_____ cm	20.75.6 Dm	_____ m

Verifica tus resultados en la sección de soluciones correspondiente

1	8 m	_____ 80 dm
2	15 Dm	_____ cm
3	7.05 Hm	_____ dm
4	19 mm	_____ m
5	185 cm	_____ dm
6	9 cm	_____ Dm
7	170.005 km	_____ m
8	54 Hm	_____ cm
9	0.806 dm	_____ Hm
10	16.50 km	_____ km
11	380 Dm	_____ dm
12	6.300 m	_____ km
13	380 Hm	_____ Hm
14	900 m	_____ m
15	600 cm	_____ cm
16	45.63 m	_____ mm
17	3.016 m	_____ mm
18	0.85 m	_____ m
19	15.48 km	_____ m
20	75.6 Dm	_____ m

Usando símbolo de multiplicación:

1	8 m = 8 m × $\frac{1 \text{ dm}}{10^{-1} \text{ m}}$ = 80 dm
2	15 Dm
3	7.05 Hm
4	19 mm
5	185 cm
6	9 cm
7	170.005 km
8	54 Hm
9	0.806 dm
10	16.50 km
11	380 Dm
12	6.300 m
13	380 Hm
14	900 m
15	600 cm
16	45.63 m
17	3.016 m
18	0.85 m
19	15.48 km
20	75.6 Dm

Usando paréntesis:

1	8 m = (8 m) ($\frac{1 \text{ dm}}{10^{-1} \text{ m}}$) = 80 dm
2	15 Dm
3	7.05 Hm
4	19 mm
5	185 cm
6	9 cm
7	170.005 km
8	54 Hm
9	0.806 dm
10	16.50 km
11	380 Dm
12	6.300 m
13	380 Hm
14	900 m
15	600 cm
16	45.63 m
17	3.016 m
18	0.85 m
19	15.48 km
20	75.6 Dm

Usando bordes:

1	8 m = $\frac{8 \text{ m}}{10^{-1} \text{ m}} = 80 \text{ dm}$
2	15 Dm
3	7.05 Hm
4	19 mm
5	185 cm
6	9 cm
7	170.005 km
8	54 Hm
9	0.806 dm
10	16.50 km
11	380 Dm
12	6.300 m
13	380 Hm
14	900 m
15	600 cm
16	45.63 m
17	3.016 m
18	0.85 m
19	15.48 km
20	75.6 Dm

Prefijos para potencias de 10

Prefijo	Potencia de 10	Abreviatura	
1	yocto-	10 ⁻²⁴	y
2	zepto-	10 ⁻²¹	z
3	atto-	10 ⁻¹⁸	a
4	femto-	10 ⁻¹⁵	f
5	pico-	10 ⁻¹²	p
6	nano-	10 ⁻⁹	n
7	micro-	10 ⁻⁶	μ
8	milli-	10 ⁻³	m
9	deci-	10 ⁻¹	d
10	deca-	10 ¹	da
11	hecto-	10 ²	h
12	centi-	10 ⁻²	c
13	kilo-	10 ³	k
14	mega-	10 ⁶	M
15	giga-	10 ⁹	G
16	tera-	10 ¹²	T
17	petta-	10 ¹⁵	P
18	exa-	10 ¹⁸	E
19	zetta-	10 ²¹	Z
20	yotta-	10 ²⁴	Y

Interpretación

Unidad de ejemplo	Relación
1 ym = 10 ⁻²⁴ m	
1 zm = 10 ⁻²¹ m	
1 am = 10 ⁻¹⁸ m	
1 fm = 10 ⁻¹⁵ m	
1 pm = 10 ⁻¹² m	
1 nm = 10 ⁻⁹ m	
1 μm = 10 ⁻⁶ m	
1 mm = 10 ⁻³ m	
1 dm = 10 ⁻¹ m	
1 dam = 10 ¹ m	
1 hm = 10 ² m	
1 cm = 10 ⁻² m	
1 km = 10 ³ m	
1 Mm = 10 ⁶ m	
1 Gm = 10 ⁹ m	
1 Tm = 10 ¹² m	
1 Pm = 10 ¹⁵ m	
1 Em = 10 ¹⁸ m	
1 Zm = 10 ²¹ m	
1 Ym = 10 ²⁴ m	

EJERCICIO 105

Realice los siguientes conversiones:

1. 8 m	_____ dm	7. 170.005 km	_____ Dm
2. 15 Dm	_____ cm	8. 54 Hm	_____ m
3. 7.05 Hm	_____ dm	9. 0.806 dm	_____ cm
4. 19 mm	_____ m	10. 16.50 km	_____ Hm
5. 185 cm	_____ dm	11. 380 Dm	_____ km
6. 9 cm	_____ dm	12. 6.300 m	_____ dm

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Sistema métrico-decimal y sistema dual

13. 380 Hm	_____ km	17. 3.016 m	_____ mm
14. 900 m	_____ Hm	18. 687 m	_____ mm
15. 900 cm	_____ m	19. 18.400 km	_____ m
16. 45.63 m	_____ cm	20. 75.6 Dm	_____ m

Verifique los resultados en la sección de soluciones correspondiente

	Usando símbolo de multiplicación:	Usando paréntesis:	Usando bordes:
1	8 m = 80 dm	8 m = (8 m) ($\frac{1}{10} \frac{dm}{m}$) = 80 dm	8 m = $\frac{8 \text{ m}}{10^{-1} \frac{m}{dm}}$ = 80 dm
2	15 Dm = 1500 cm	15 Dm = (15 Dm) ($\frac{1}{100} \frac{cm}{Dm}$) = 1500 cm	15 Dm = $\frac{15 \text{ Dm}}{10^{-2} \frac{Dm}{cm}}$ = 1500 cm
3	7.05 Hm = 7050 dm	7.05 Hm = (7.05 Hm) ($\frac{1}{100} \frac{dm}{Hm}$) = 7050 dm	7.05 Hm = $\frac{7.05 \text{ Hm}}{10^{-2} \frac{Hm}{dm}}$ = 7050 dm
4	19 mm = 0.019 m	19 mm = (19 mm) ($\frac{1}{1000} \frac{m}{mm}$) = 0.019 m	19 mm = $\frac{19 \text{ mm}}{10^3 \frac{mm}{m}}$ = 0.019 m
5	185 cm = 1.85 dm	185 cm = (185 cm) ($\frac{1}{100} \frac{dm}{cm}$) = 1.85 dm	185 cm = $\frac{185 \text{ cm}}{10^2 \frac{cm}{dm}}$ = 1.85 dm
6	9 cm = 0.09 dm	9 cm = (9 cm) ($\frac{1}{100} \frac{dm}{cm}$) = 0.09 dm	9 cm = $\frac{9 \text{ cm}}{10^2 \frac{cm}{dm}}$ = 0.09 dm
7	170.005 km = 170.005 Dm	170.005 km = (170.005 km) ($\frac{1}{1000} \frac{Dm}{km}$) = 170.005 Dm	170.005 km = $\frac{170.005 \text{ km}}{10^{-3} \frac{km}{Dm}}$ = 170.005 Dm
8	54 Hm = 54000 m	54 Hm = (54 Hm) ($\frac{1}{100} \frac{m}{Hm}$) = 54000 m	54 Hm = $\frac{54 \text{ Hm}}{10^{-2} \frac{Hm}{m}}$ = 54000 m
9	0.806 dm = 8.06 cm	0.806 dm = (0.806 dm) ($\frac{1}{100} \frac{cm}{dm}$) = 8.06 cm	0.806 dm = $\frac{0.806 \text{ dm}}{10^{-2} \frac{dm}{cm}}$ = 8.06 cm
10	16.50 km = 16500 m	16.50 km = (16.50 km) ($\frac{1}{1000} \frac{m}{km}$) = 16500 m	16.50 km = $\frac{16.50 \text{ km}}{10^{-3} \frac{km}{m}}$ = 16500 m
11	380 Dm = 38000 m	380 Dm = (380 Dm) ($\frac{1}{100} \frac{m}{Dm}$) = 38000 m	380 Dm = $\frac{380 \text{ Dm}}{10^{-2} \frac{Dm}{m}}$ = 38000 m
12	6.300 m = 63000 dm	6.300 m = (6.300 m) ($\frac{1}{100} \frac{dm}{m}$) = 63000 dm	6.300 m = $\frac{6.300 \text{ m}}{10^{-2} \frac{m}{dm}}$ = 63000 dm
13	380 Hm = 3800000 m	380 Hm = (380 Hm) ($\frac{1}{10000} \frac{m}{Hm}$) = 3800000 m	380 Hm = $\frac{380 \text{ Hm}}{10^{-4} \frac{Hm}{m}}$ = 3800000 m
14	900 m = 9 Hm	900 m = (900 m) ($\frac{1}{100000} \frac{Hm}{m}$) = 9 Hm	900 m = $\frac{900 \text{ m}}{10^5 \frac{m}{Hm}}$ = 9 Hm
15	600 cm = 6 mm	600 cm = (600 cm) ($\frac{1}{100000} \frac{mm}{cm}$) = 6 mm	600 cm = $\frac{600 \text{ cm}}{10^5 \frac{cm}{mm}}$ = 6 mm
16	45.63 m = 4563 cm	45.63 m = (45.63 m) ($\frac{1}{100} \frac{cm}{m}$) = 4563 cm	45.63 m = $\frac{45.63 \text{ m}}{10^{-2} \frac{m}{cm}}$ = 4563 cm
17	3.016 m = 3016 mm	3.016 m = (3.016 m) ($\frac{1}{1000} \frac{mm}{m}$) = 3016 mm	3.016 m = $\frac{3.016 \text{ m}}{10^{-3} \frac{m}{mm}}$ = 3016 mm
18	0.85 m = 850 mm	0.85 m = (0.85 m) ($\frac{1}{1000} \frac{mm}{m}$) = 850 mm	0.85 m = $\frac{0.85 \text{ m}}{10^{-3} \frac{m}{mm}}$ = 850 mm
19	15.48 km = 15480000 m	15.48 km = (15.48 km) ($\frac{1}{1000000} \frac{m}{km}$) = 15480000 m	15.48 km = $\frac{15.48 \text{ km}}{10^{-7} \frac{km}{m}}$ = 15480000 m
20	75.6 Dm = 75600 m	75.6 Dm = (75.6 Dm) ($\frac{1}{1000} \frac{m}{Dm}$) = 75600 m	75.6 Dm = $\frac{75.6 \text{ Dm}}{10^{-3} \frac{Dm}{m}}$ = 75600 m

Prefijos para potencias de 10

Prefijo	Potencia de 10	Abreviatura
1	10 ²⁴	Y
2	10 ²¹	Z
3	10 ¹⁸	A
4	10 ¹⁵	F
5	10 ¹²	P
6	10 ⁹	N
7	10 ⁶	µ
8	10 ³	m
9	10 ⁰	d
10	10 ⁻¹	da
11	10 ⁻²	h
12	10 ⁻³	c
13	10 ⁻⁶	k
14	10 ⁻⁹	M
15	10 ⁻¹²	G
16	10 ⁻¹⁵	T
17	10 ⁻¹⁸	P
18	10 ⁻²¹	E
19	10 ⁻²⁴	Z
20	10 ⁻²⁷	Y

Interpretación

Unidad de ejemplo	Relación
1 ym = 10 ⁻²⁴ m	
1 zm = 10 ⁻²¹ m	
1 am = 10 ⁻¹⁸ m	
1 fm = 10 ⁻¹⁵ m	
1 pm = 10 ⁻¹² m	
1 nm = 10 ⁻⁹ m	
1 µm = 10 ⁻⁶ m	
1 mm = 10 ⁻³ m	
1 dm = 10 ⁻¹ m	
1 dam = 10 ¹ m	
1 hm = 10 ² m	
1 km = 10 ³ m	
1 Mm = 10 ⁶ m	
1 Gm = 10 ⁹ m	
1 Tm = 10 ¹² m	
1 Pm = 10 ¹⁵ m	
1 Em = 10 ¹⁸ m	
1 Zm = 10 ²¹ m	
1 Ym = 10 ²⁴ m	

EJERCICIO 105

- Resuelve las siguientes conversiones:
1. 8 m = ... dm
 2. 15 Dm = ... cm
 3. 7.05 Hm = ... mm
 4. 19 mm = ... dm
 5. 185 cm = ... dm
 6. 9 cm = ... dm
 7. 170.005 km = ... Dm
 8. 54 Hm = ... m
 9. 0.806 dm = ... cm
 10. 16.50 km = ... Hm
 11. 380 Dm = ... m
 12. 6.300 m = ... km
 13. 380 Hm = ... km
 14. 900 m = ... Hm
 15. 600 cm = ... m
 16. 45.63 m = ... cm
 17. 3.016 m = ... mm
 18. 0.85 m = ... mm
 19. 15.48 km = ... km
 20. 75.6 Dm = ... Dm

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Sistema métrico decimal y sistema inglés	
13. 360 ftm = ... km	17. 3.016 m = ... mm
14. 900 m = ... Hm	18. 0.85 m = ... mm
15. 600 cm = ... m	19. 15.480 km = ... m
16. 45.63 m = ... cm	20. 75.6 Dm = ... m

Verifica tus resultados en la sección de soluciones correspondiente.

Usando símbolo de multiplicación:

1	8 m = 80 dm
2	15 Dm = 1500 cm
3	7.05 Hm = 7050 mm
4	19 mm = 0.019 m
5	185 cm = 1.85 dm
6	9 cm = 0.09 dm
7	170.005 km = 170.005 Dm
8	54 Hm = 5400 m
9	0.806 dm = 8.06 cm
10	16.50 km = 165 Hm
11	380 Dm = 38000 m
12	6.300 m = 6.3 km
13	380 Hm = 38 km
14	900 m = 0.9 Hm
15	600 cm = 6 m
16	45.63 m = 4563 cm
17	3.016 m = 3016 mm
18	0.85 m = 850 mm
19	15.48 km = 15.48 km
20	75.6 Dm = 75.6 Dm

Usando paréntesis:

1	8 m = (8 m) ($\frac{1 \text{ dm}}{10^{-1} \text{ m}}$) = 80 dm
2	15 Dm = (15 Dm) ($\frac{1 \text{ cm}}{10^{-2} \text{ Dm}}$) = 1500 cm
3	7.05 Hm = (7.05 Hm) ($\frac{1 \text{ mm}}{10^{-3} \text{ Hm}}$) = 7050 mm
4	19 mm = (19 mm) ($\frac{1 \text{ m}}{10^1 \text{ mm}}$) = 0.019 m
5	185 cm = (185 cm) ($\frac{1 \text{ dm}}{10^{-1} \text{ cm}}$) = 1.85 dm
6	9 cm = (9 cm) ($\frac{1 \text{ dm}}{10^{-2} \text{ cm}}$) = 0.09 dm
7	170.005 km = (170.005 km) ($\frac{1 \text{ Dm}}{10^0 \text{ km}}$) = 170.005 Dm
8	54 Hm = (54 Hm) ($\frac{1 \text{ m}}{10^{-2} \text{ Hm}}$) = 5400 m
9	0.806 dm = (0.806 dm) ($\frac{1 \text{ cm}}{10^{-2} \text{ dm}}$) = 8.06 cm
10	16.50 km = (16.50 km) ($\frac{1 \text{ Hm}}{10^{-1} \text{ km}}$) = 165 Hm
11	380 Dm = (380 Dm) ($\frac{1 \text{ m}}{10^{-2} \text{ Dm}}$) = 38000 m
12	6.300 m = (6.300 m) ($\frac{1 \text{ km}}{10^3 \text{ m}}$) = 6.3 km
13	380 Hm = (380 Hm) ($\frac{1 \text{ km}}{10^1 \text{ Hm}}$) = 38 km
14	900 m = (900 m) ($\frac{1 \text{ Hm}}{10^3 \text{ m}}$) = 0.9 Hm
15	600 cm = (600 cm) ($\frac{1 \text{ m}}{10^2 \text{ cm}}$) = 6 m
16	45.63 m = (45.63 m) ($\frac{1 \text{ cm}}{10^{-2} \text{ m}}$) = 4563 cm
17	3.016 m = (3.016 m) ($\frac{1 \text{ mm}}{10^{-3} \text{ m}}$) = 3016 mm
18	0.85 m = (0.85 m) ($\frac{1 \text{ mm}}{10^{-3} \text{ m}}$) = 850 mm
19	15.48 km = (15.48 km) ($\frac{1 \text{ km}}{10^0 \text{ km}}$) = 15.48 km
20	75.6 Dm = (75.6 Dm) ($\frac{1 \text{ Dm}}{1 \text{ Dm}}$) = 75.6 Dm

Usando bordes:

1	8 m = $\frac{8 \text{ m}}{10^{-1} \text{ m}}$ = 80 dm
2	15 Dm = $\frac{15 \text{ Dm}}{10^{-2} \text{ Dm}}$ = 1500 cm
3	7.05 Hm = $\frac{7.05 \text{ Hm}}{10^{-3} \text{ Hm}}$ = 7050 mm
4	19 mm = $\frac{19 \text{ mm}}{10^1 \text{ mm}}$ = 0.019 m
5	185 cm = $\frac{185 \text{ cm}}{10^{-1} \text{ cm}}$ = 1.85 dm
6	9 cm = $\frac{9 \text{ cm}}{10^{-2} \text{ cm}}$ = 0.09 dm
7	170.005 km = $\frac{170.005 \text{ km}}{10^0 \text{ km}}$ = 170.005 Dm
8	54 Hm = $\frac{54 \text{ Hm}}{10^{-2} \text{ Hm}}$ = 5400 m
9	0.806 dm = $\frac{0.806 \text{ dm}}{10^{-2} \text{ dm}}$ = 8.06 cm
10	16.50 km = $\frac{16.50 \text{ km}}{10^{-1} \text{ km}}$ = 165 Hm
11	380 Dm = $\frac{380 \text{ Dm}}{10^{-2} \text{ Dm}}$ = 38000 m
12	6.300 m = $\frac{6.300 \text{ m}}{10^3 \text{ m}}$ = 6.3 km
13	380 Hm = $\frac{380 \text{ Hm}}{10^1 \text{ Hm}}$ = 38 km
14	900 m = $\frac{900 \text{ m}}{10^3 \text{ m}}$ = 0.9 Hm
15	600 cm = $\frac{600 \text{ cm}}{10^2 \text{ cm}}$ = 6 m
16	45.63 m = $\frac{45.63 \text{ m}}{10^{-2} \text{ m}}$ = 4563 cm
17	3.016 m = $\frac{3.016 \text{ m}}{10^{-3} \text{ m}}$ = 3016 mm
18	0.85 m = $\frac{0.85 \text{ m}}{10^{-3} \text{ m}}$ = 850 mm
19	15.48 km = $\frac{15.48 \text{ km}}{10^0 \text{ km}}$ = 15.48 km
20	75.6 Dm = $\frac{75.6 \text{ Dm}}{1 \text{ Dm}}$ = 75.6 Dm

Prefijos para potencias de 10

Prefijo	Potencia de 10	Abreviatura
1 yocto-	10^{-24}	y
2zepto-	10^{-21}	z
3atto-	10^{-18}	a
4femto-	10^{-15}	f
5pico-	10^{-12}	p
6nano-	10^{-9}	n
7micro-	10^{-6}	μ
8milli-	10^{-3}	m
9deci-	10^{-1}	d
10deca-	10^1	da
11hecto-	10^2	h
12centi-	10^{-2}	c
13kilo-	10^3	k
14mega-	10^6	M
15giga-	10^9	G
16tera-	10^{12}	T
17peta-	10^{15}	P
18exa-	10^{18}	E
19zetta-	10^{21}	Z
20yotta-	10^{24}	Y

Interpretación

Unidad de ejemplo	Relación
1 ym = 10^{-24} m	
1 zm = 10^{-21} m	
1 am = 10^{-18} m	
1 fm = 10^{-15} m	
1 pm = 10^{-12} m	
1 nm = 10^{-9} m	
1 μm = 10^{-6} m	
1 mm = 10^{-3} m	
1 dm = 10^{-1} m	
1 dam = 10^1 m	
1 hm = 10^2 m	
1 cm = 10^{-2} m	
1 km = 10^3 m	
1 Mm = 10^6 m	
1 Gm = 10^9 m	
1 Tm = 10^{12} m	
1 Pm = 10^{15} m	
1 Em = 10^{18} m	
1 Zm = 10^{21} m	
1 Ym = 10^{24} m	

EJERCICIO 105

Realiza las siguientes conversiones:

- 8 m = _____ dm
- 15 Dm = _____ cm
- 7,05 Hm = _____ cm
- 19 mm = _____ m
- 185 cm = _____ dm
- 9 cm = _____ dm
- 170,005 km = _____ Dm
- 54 Hm = _____ m
- 0,806 dm = _____ cm
- 16,50 km = _____ Hm
- 380 Dm = _____ km
- 6,300 m = _____ dm

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CS4

Sistema métrico decimal y números decimales

13. 380 Hm = _____ km	17. 3,016 m = _____ mm
14. 900 m = _____ Hm	18. 0,85 m = _____ mm
15. 600 cm = _____ m	19. 15,480 km = _____ m
16. 45,63 m = _____ cm	20. 75,6 Dm = _____ m

Verifica tus resultados en la sección de soluciones correspondiente.

Usando símbolo de multiplicación:

1 8 m = _____ dm	1 8 m = _____ dm
2 15 Dm = _____ cm	2 15 Dm = _____ cm
3 7,05 Hm = _____ cm	3 7,05 Hm = _____ cm
4 19 mm = _____ m	4 19 mm = _____ m
5 185 cm = _____ dm	5 185 cm = _____ dm
6 9 cm = _____ dm	6 9 cm = _____ dm
7 170,005 km = _____ Dm	7 170,005 km = _____ Dm
8 54 Hm = _____ m	8 54 Hm = _____ m
9 0,806 dm = _____ cm	9 0,806 dm = _____ cm
10 16,50 km = _____ Hm	10 16,50 km = _____ Hm
11 380 Dm = _____ km	11 380 Dm = _____ km
12 6,300 m = _____ dm	12 6,300 m = _____ dm
13 380 Hm = _____ km	13 380 Hm = _____ km
14 900 m = _____ Hm	14 900 m = _____ Hm
15 600 cm = _____ m	15 600 cm = _____ m
16 45,63 m = _____ cm	16 45,63 m = _____ cm
17 3,016 m = _____ mm	17 3,016 m = _____ mm
18 0,85 m = _____ mm	18 0,85 m = _____ mm
19 15,48 km = _____ m	19 15,48 km = _____ m
20 75,6 Dm = _____ m	20 75,6 Dm = _____ m

Usando paréntesis:

1 8 m = (8 m) ($\frac{1 \text{ dm}}{10^{-1} \text{ m}}$) = 80 dm
2 15 Dm = (15 Dm) ($\frac{1 \text{ cm}}{10^{-2} \text{ Dm}}$) = 15,000 cm
3 7,05 Hm = (7,05 Hm) ($\frac{1 \text{ cm}}{10^{-5} \text{ Hm}}$) = 7,050 cm
4 19 mm = (19 mm) ($\frac{1 \text{ m}}{10^{-2} \text{ mm}}$) = 0,19 m
5 185 cm = (185 cm) ($\frac{1 \text{ dm}}{10^{-1} \text{ cm}}$) = 18,5 dm
6 9 cm = (9 cm) ($\frac{1 \text{ dm}}{10^{-1} \text{ cm}}$) = 0,9 dm
7 170,005 km = (170,005 km) ($\frac{1 \text{ Dm}}{10^{-3} \text{ km}}$) = 170,005 Dm
8 54 Hm = (54 Hm) ($\frac{1 \text{ m}}{10^{-2} \text{ Hm}}$) = 5,400 m
9 0,806 dm = (0,806 dm) ($\frac{1 \text{ cm}}{10^{-2} \text{ dm}}$) = 8,06 cm
10 16,50 km = (16,50 km) ($\frac{1 \text{ Hm}}{10^{-2} \text{ km}}$) = 165 Hm
11 380 Dm = (380 Dm) ($\frac{1 \text{ km}}{10^{-3} \text{ Dm}}$) = 380 km
12 6,300 m = (6,300 m) ($\frac{1 \text{ dm}}{10^{-1} \text{ m}}$) = 63,000 dm
13 380 Hm = (380 Hm) ($\frac{1 \text{ km}}{10^{-3} \text{ Hm}}$) = 380 km
14 900 m = (900 m) ($\frac{1 \text{ Hm}}{10^{-2} \text{ m}}$) = 9 Hm
15 600 cm = (600 cm) ($\frac{1 \text{ m}}{10^{-2} \text{ cm}}$) = 6 m
16 45,63 m = (45,63 m) ($\frac{1 \text{ cm}}{10^{-2} \text{ m}}$) = 45,63 cm
17 3,016 m = (3,016 m) ($\frac{1 \text{ mm}}{10^{-3} \text{ m}}$) = 3,016 mm
18 0,85 m = (0,85 m) ($\frac{1 \text{ mm}}{10^{-3} \text{ m}}$) = 850 mm
19 15,48 km = (15,48 km) ($\frac{1 \text{ m}}{10^{-5} \text{ km}}$) = 15,480 m
20 75,6 Dm = (75,6 Dm) ($\frac{1 \text{ m}}{10^{-1} \text{ Dm}}$) = 756 m

Usando bordes:

1 8 m = $\frac{8 \text{ m}}{10^{-1} \text{ m}}$ = 80 dm
2 15 Dm = $\frac{15 \text{ Dm}}{10^{-2} \text{ Dm}}$ = 15,000 cm
3 7,05 Hm = $\frac{7,05 \text{ Hm}}{10^{-5} \text{ Hm}}$ = 7,050 cm
4 19 mm = $\frac{19 \text{ mm}}{10^{-2} \text{ mm}}$ = 0,19 m
5 185 cm = $\frac{185 \text{ cm}}{10^{-1} \text{ cm}}$ = 18,5 dm
6 9 cm = $\frac{9 \text{ cm}}{10^{-1} \text{ cm}}$ = 0,9 dm
7 170,005 km = $\frac{170,005 \text{ km}}{10^{-3} \text{ km}}$ = 170,005 Dm
8 54 Hm = $\frac{54 \text{ Hm}}{10^{-2} \text{ Hm}}$ = 5,400 m
9 0,806 dm = $\frac{0,806 \text{ dm}}{10^{-2} \text{ dm}}$ = 8,06 cm
10 16,50 km = $\frac{16,50 \text{ km}}{10^{-2} \text{ km}}$ = 165 Hm
11 380 Dm = $\frac{380 \text{ Dm}}{10^{-3} \text{ Dm}}$ = 380 km
12 6,300 m = $\frac{6,300 \text{ m}}{10^{-1} \text{ m}}$ = 63,000 dm
13 380 Hm = $\frac{380 \text{ Hm}}{10^{-3} \text{ Hm}}$ = 380 km
14 900 m = $\frac{900 \text{ m}}{10^{-2} \text{ m}}$ = 9 Hm
15 600 cm = $\frac{600 \text{ cm}}{10^{-2} \text{ cm}}$ = 6 m
16 45,63 m = $\frac{45,63 \text{ m}}{10^{-2} \text{ m}}$ = 45,63 cm
17 3,016 m = $\frac{3,016 \text{ m}}{10^{-3} \text{ m}}$ = 3,016 mm
18 0,85 m = $\frac{0,85 \text{ m}}{10^{-3} \text{ m}}$ = 850 mm
19 15,48 km = $\frac{15,48 \text{ km}}{10^{-5} \text{ km}}$ = 15,480 m
20 75,6 Dm = $\frac{75,6 \text{ Dm}}{10^{-1} \text{ Dm}}$ = 756 m