

Length conversions: squaresaw

3000 mm	30 mm A	53 cm 3.5 cm B 500 cm	300 cm C 3 km	35 000 mm D 5300 m
35 km	5300 mm	53 000 m	5000 mm	
3500 m	50 mm E	5.3 m 35 000 m F	53 m 350 mm G 3 m	5 km H
3.5 km	30 mm	30 mm	3 cm	5 km
35 m	3 m I	5 m J 530 mm	5.3 m K 3.5 m	3 cm L 530 cm
35 m	35 cm	53 mm	5 m	3500 mm
3000 m	5000 m M	5.3 km 53 km N 35 cm	35 cm O 350 cm	3.5 m P 5 cm
53 000 mm	35 mm	5.3 cm	350 cm	5 cm

NUMBER SENTENCES 1

What instrument would you use to measure these things?

13. table
14. football field
15. paper clip

trundle wheel, ruler, tape measure, odometer, builders' tape

Add these measurements.

16. $5.3 \text{ km} + 1.4 \text{ km}$
 $\underline{\hspace{1cm}}$
17. $85 \text{ cm} + 13 \text{ cm}$
 $\underline{\hspace{1cm}}$

18. $3.2 \text{ km} + 1500 \text{ m}$ (answer in km)
 19. $2 \text{ m} + 320 \text{ cm}$ (answer in cm)

Subtract these measurements.

20. $53 \text{ m} - 21 \text{ m}$
 $\underline{\hspace{1cm}}$
21. $358 \text{ mm} - 126 \text{ mm}$
 $\underline{\hspace{1cm}}$

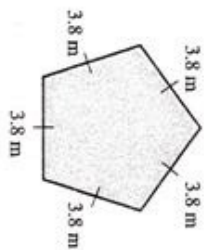
22. $8 \text{ cm} - 30 \text{ mm}$ (ans. in mm) 23. $4 \text{ m} - 200 \text{ cm}$ (ans. in m)

Multiply these measurements.

24. $6 \text{ km} \times 5$
 $\underline{\hspace{1cm}}$
25. $543 \text{ cm} \times 2$
 $\underline{\hspace{1cm}}$

26. $620 \text{ m} \times 2$ (answer in km) 27. $45 \text{ mm} \times 5$ (answer in cm)

28. Find the perimeter of this shape.



How many:

29. metres in 3.5 km ?
 30. millimetres in 17.3 cm ?

In this exercise you will use only the numbers 2, 3, 4, 5 and 6.

Using any three *different* numbers in each one, complete the number sentences below.

Here is an example:

$$\begin{array}{r} _ + _ - _ = 6 \\ 4 + 5 - 3 = 6 \end{array}$$

This is one correct solution. Can you find another?

Remember: You must not use any counting number more than once in each number sentence.

- | | |
|----|--------------------------|
| 1 | $_ + _ + _ = 9$ |
| 2 | $_ + _ - _ = 9$ |
| 3 | $_ + _ - _ = 2$ |
| 4 | $_ + _ - _ = 4$ |
| 5 | $_ + _ + _ = 10$ |
| 6 | $_ + _ + _ = 11$ |
| 7 | $_ - _ - _ = 1$ |
| 8 | $_ - _ - _ = 0$ |
| 9 | $_ - _ + _ = 3$ |
| 10 | $_ \times _ + _ = 10$ |
| 11 | $_ \times _ - _ = 7$ |
| 12 | $_ \times _ - _ = 2$ |
| 13 | $_ \times _ - _ = 0$ |
| 14 | $_ \times _ - _ = 3$ |
| 15 | $_ \times _ + _ = 11$ |

Some of the sentences have more than one possible solution. How many can you find?



Metric Conversions

Practise converting from one unit of length to another.

1. Centimetres to millimetres (x10)

$3 \text{ cm} = \underline{\hspace{2cm}}$

$26 \text{ cm} = \underline{\hspace{2cm}}$

$62 \text{ cm} = \underline{\hspace{2cm}}$

$32.4 \text{ cm} = \underline{\hspace{2cm}}$

$462 \text{ cm} = \underline{\hspace{2cm}}$

$1.65 \text{ cm} = \underline{\hspace{2cm}}$

$4.9 \text{ cm} = \underline{\hspace{2cm}}$

$1,000 \text{ cm} = \underline{\hspace{2cm}}$

$0.6 \text{ cm} = \underline{\hspace{2cm}}$

2. Millimetres to centimetres ($\div 10$)

$27 \text{ mm} = \underline{\hspace{2cm}}$

$3 \text{ mm} = \underline{\hspace{2cm}}$

$630 \text{ mm} = \underline{\hspace{2cm}}$

$1,000 \text{ mm} = \underline{\hspace{2cm}}$

$11.4 \text{ mm} = \underline{\hspace{2cm}}$

$406 \text{ mm} = \underline{\hspace{2cm}}$

3. Metres to centimetres (x100)

$1 \text{ m} = \underline{\hspace{2cm}}$

$71 \text{ m} = \underline{\hspace{2cm}}$

$2.5 \text{ m} = \underline{\hspace{2cm}}$

$34.2 \text{ m} = \underline{\hspace{2cm}}$

$10 \text{ m} = \underline{\hspace{2cm}}$

$7.5 \text{ m} = \underline{\hspace{2cm}}$

$333 \text{ m} = \underline{\hspace{2cm}}$

$13.7 \text{ m} = \underline{\hspace{2cm}}$

$50 \text{ m} = \underline{\hspace{2cm}}$

4. Centimetres to metres ($\div 100$)

$160 \text{ cm} = \underline{\hspace{2cm}}$

$1,000 \text{ cm} = \underline{\hspace{2cm}}$

$400 \text{ cm} = \underline{\hspace{2cm}}$

$83 \text{ cm} = \underline{\hspace{2cm}}$

$222 \text{ cm} = \underline{\hspace{2cm}}$

$365 \text{ cm} = \underline{\hspace{2cm}}$

$752 \text{ cm} = \underline{\hspace{2cm}}$

$4,632 \text{ cm} = \underline{\hspace{2cm}}$

$3 \text{ cm} = \underline{\hspace{2cm}}$

5. Metres to kilometres ($\div 1000$)

$4,362 \text{ m} = \underline{\hspace{2cm}}$

$1,000 \text{ m} = \underline{\hspace{2cm}}$

$6,555 \text{ m} = \underline{\hspace{2cm}}$

$10,000 \text{ m} = \underline{\hspace{2cm}}$

$700 \text{ m} = \underline{\hspace{2cm}}$

$10 \text{ m} = \underline{\hspace{2cm}}$

$782 \text{ m} = \underline{\hspace{2cm}}$

$1 \text{ m} = \underline{\hspace{2cm}}$

$1,360 \text{ m} = \underline{\hspace{2cm}}$

6. Kilometres to metres (x1000)

$3 \text{ km} = \underline{\hspace{2cm}}$

$77 \text{ km} = \underline{\hspace{2cm}}$

$0.42 \text{ km} = \underline{\hspace{2cm}}$

$0.001 \text{ km} = \underline{\hspace{2cm}}$

$2.7 \text{ km} = \underline{\hspace{2cm}}$

$0.429 \text{ km} = \underline{\hspace{2cm}}$

$62 \text{ km} = \underline{\hspace{2cm}}$

$20 \text{ km} = \underline{\hspace{2cm}}$

$6.24 \text{ km} = \underline{\hspace{2cm}}$

Challenge questions!!

How many millimetres are there in a kilometre?

A runner's steps fall about 1 metre apart. How many of your steps are needed to run around the school's perimeter? Compare your results with others.

Convert the lengths given to the units indicated to find the answer code.



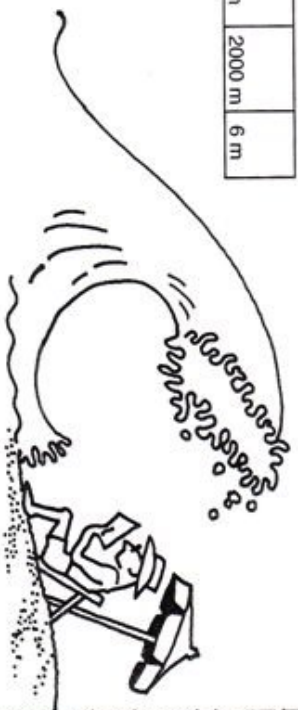
- 240
- 0.24
- 0.78
- 92
- 32
- 56
- 78
- 78
- 3.2
- 0.078
- 9.2
- 560
- 320
- 0.32
- 2.4
- 920
- 5.6
- 0.56
- 24

A 3200 m _____ km	C 0.56 m _____ cm	E 2400 mm _____ m
F 7800 cm _____ km	I 0.000 32 km _____ cm	K 0.078 km _____ m
N 56 mm _____ cm	P 24 cm _____ mm	R 0.32 m _____ mm
S 24 million mm _____ km	T 78 cm _____ m	A 240 m _____ km
T 32 cm _____ m	E 0.000 56 km _____ mm	I 0.000 005 6 km _____ cm
N 9.2 m _____ cm	R 78 mm _____ cm	R 0.092 km _____ m
	T 0.92 cm _____ mm	

How can you tell when the sea is happy to see you?

- Convert the following units of length. Use your answers to unlock the puzzle code below.
- | | | |
|-----------------------------------|-----------------------------------|------------------------------------|
| 1. 5 m = <u>I</u> cm | 10. 3.1 m = <u>L</u> cm | 19. 60 000 m = <u>Y</u> km |
| 2. 2 cm = <u>A</u> mm | 11. 600 cm = <u>U</u> m | 20. 8 km = <u>W</u> m |
| 3. $\frac{1}{2}$ km = <u>T</u> m | 12. 5000 m = <u>N</u> km | 21. 700 cm = <u>G</u> m |
| 4. 4 km = <u>Y</u> m | 13. 70 mm = <u>A</u> cm | 22. 7 km = <u>E</u> m |
| 5. 16 cm = <u>A</u> mm | 14. 15 000 m = <u>I</u> km | 23. $3\frac{1}{2}$ m = <u>S</u> cm |
| 6. $\frac{1}{2}$ cm = <u>L</u> mm | 15. 3 km = <u>T</u> m | 24. 1 km = <u>E</u> m |
| 7. $\frac{3}{4}$ km = <u>B</u> m | 16. $\frac{3}{4}$ m = <u>T</u> cm | 25. 55 mm = <u>S</u> cm |
| 8. 2 km = <u>Q</u> m | 17. 50 mm = <u>W</u> cm | 26. 7000 m = <u>I</u> km |
| 9. 8 m = <u>Y</u> cm | 18. $\frac{1}{5}$ m = <u>I</u> cm | |

15 km	3000 m	5.5 cm	7000 m	20 mm	350 cm	60 km
20 cm	500 m	5 cm	500 cm	5 mm	310 cm	750 m
8000 m	160 mm	4000 m	7 km	5 km	7 m	1000 m
7 cm	3000 m	60 km	2000 m	6 m		



List as many items as possible, in the classroom, that could be measured as approximately 10 cm long.



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