Outcome 2 – Metric & Imperial Measures for Length

Bronze examples

Examples...

0·47 cm = 4·7 mm   23 mm = 2·3 cm
(× 10!)   (÷ 10!)

0·867 m = 86·7 cm   19·6 cm = 0·196 m
(× 100!)   (÷ 100!)

0·095 m = 95 mm   380 mm = 0·38 m
(× 1000!)   (÷ 1000!)

0·18 km = 180 m   59·2 m = 0·0592 km
(× 1000!)   (÷ 1000!)

Silver examples

Examples...

The Byrnes are on a family road trip and travel a distance of 80 miles. How far have they travelled in kilometres?

$80 \times 1\cdot61 = 128\cdot8$ kilometres

A footballer scored a direct free kick from 30 yards out. How many centimetres is this?

$30 \times 91\cdot44 = 2743\cdot2$ centimetres

Gold examples

Examples...

The distance on a fairway is 280 yards. How many metres is this?

$280 \times 91\cdot44 \div 100 = 256\cdot032$ m

A basket ball player is 6 ft 10 in tall. How tall is he in metres?

- Change the feet into metres

$6 \times 30\cdot48 \div 100 = 1\cdot8288$ m

- Change the inches into metres

$10 \times 2\cdot54 \div 100 = 0\cdot254$ m

- Add them together

$1\cdot8288 + 0\cdot254 = 2\cdot0828$ m

Bronze Questions

Change the following units of length...

Unit	Abbrev.	Metric	Links
inch	in or "	2·54 cm	12 inches = 1 foot
foot	ft or '	30·48 cm	12 inches = 1 foot 3 feet = 1 yard
yard	yd	91·44 cm	3 feet = 1 yard 1760 yards = 1 mile
mile	mi or m	1·61 km	1760 yards = 1 mile

1. 0·75 cm = ? mm   2. 0·406 m = ? cm

3. 0·088 m = ? mm   4. 32·7 m = ? cm

5. 94·2 km = ? m   6. 19·3 mm = ? cm

7. 0·593 cm = ? m   8. 83·5 mm = ? m

9. 0·068 m = ? km   10. 5·04 mm = ? m

Silver Questions

1. A kitchen knife is 8 inches long. How many centimetres is this?

2. Chelsea FC's pitch is 110 yards long. How long is this in centimetres?

3. A swimming pool is 8·5 feet at a certain point. How many centimetres?

4. The distance from London to Glasgow is 345 miles. What is this in kilometres?

Gold Questions

1. A man is 6 ft 3 in. How tall is he in metres?

2. A joiner measures 70 inches. What is this in millimetres?

3. Stamford Bridge is 110 yards in length. What is this in metres?

4. The distance from Glasgow to Stirling is 27 miles. How many metres is this?

Bronze Answers

1. 7·5 mm   2. 40·6 cm
3. 88 mm   4. 3270 cm
5. 94 200 m   6. 1·93 cm
7. 0·00593 m   8. 0·0835 m
9. 0·000068 km   10. 0·00504 m

Silver Answers

1. 20·32 cm   2. 10 058·4 cm

3. 259·08 cm   4. 555·45 km

Gold Answers

1. 1·905 m   2. 1778 mm

3. 100·584 m   4. 43 470 m