

Conversion of Units (Length Both) **KEY**

Convert the following (Show your Steps)

1. 42km to in	$42\text{km} \cdot \frac{1000\text{m}}{1\text{km}} \cdot \frac{100\text{cm}}{1\text{m}} \cdot \frac{1\text{in}}{2.54\text{cm}} = \frac{4200000}{2.54} = 1653543.3\text{cm}$
2. 3400cm to yds	$3400\text{cm} \cdot \frac{1\text{m}}{100\text{cm}} \cdot \frac{1\text{ft}}{0.305\text{m}} \cdot \frac{1\text{yd}}{3\text{ft}} = \frac{3400}{91.5} = 37.16\text{yds}$
3. 0.12km to ft	$0.12\text{km} \cdot \frac{1000\text{m}}{1\text{km}} \cdot \frac{1\text{ft}}{0.305\text{m}} = \frac{120}{0.305} = 393.4\text{ft}$
4. 1 234 000in to km	$1234000\text{in} \cdot \frac{1\text{ft}}{12\text{in}} \cdot \frac{1\text{yd}}{3\text{ft}} \cdot \frac{1\text{mile}}{1760\text{yds}} \cdot \frac{1.609\text{km}}{1\text{mile}} = \frac{1985806}{63360} = 31.3\text{km}$
5. 0.35m to ft	$0.35\text{m} \cdot \frac{1\text{ft}}{0.305\text{m}} = 1.1\text{ft}$
6. 450mm to in	$450\text{mm} \cdot \frac{1\text{cm}}{10\text{mm}} \cdot \frac{1\text{in}}{2.54\text{cm}} = \frac{450}{25.4} = 17.7\text{in}$
7. 356cm to yds	$356\text{cm} \cdot \frac{1\text{m}}{100\text{cm}} \cdot \frac{1\text{ft}}{0.305\text{m}} \cdot \frac{1\text{yd}}{3\text{ft}} = \frac{356}{100 \cdot 0.305 \cdot 3} = 3.9\text{yds}$
8. 0.43km to ft	$0.43\text{km} \cdot \frac{1000\text{m}}{1\text{km}} \cdot \frac{1\text{ft}}{0.305\text{m}} = \frac{430}{0.305} = 1409.8\text{ft}$
9. 23m to miles	$23\text{m} \cdot \frac{1\text{km}}{1000\text{m}} \cdot \frac{1\text{mile}}{1.609\text{km}} = \frac{23}{1609} = 0.014\text{miles}$
10. 0.002m to inches	$0.002\text{m} \cdot \frac{100\text{cm}}{1\text{m}} \cdot \frac{1\text{in}}{2.54\text{cm}} = \frac{0.2}{2.54} = 0.08\text{in}$