

Dimensional Analysis **KEY**

Instructions: Using the equivalencies given, convert to the units requested.

Equivalencies			
60 seconds = 1 minute	365.242 days = 1 year	5,280 feet = 1 mile	100 centi = 1 unit
60 minutes = 1 hour	12 inches = 1 foot	1 inch = 2.54 cm	1,000 milli = 1 unit
24 hours = 1 day	3 feet = 1 yard	1 kilo = 1,000 units	10 ⁹ nano = 1 unit

1. 5 minutes = 300 sec
2. 2.7 minutes = 162 sec
3. 423 sec = 7.05 minutes

4. 200 cm = 2.0 m
5. 4,123 cm = 41.23 m
6. 5 inches = 12.7 cm

7. 84 inches = 2.058 m
8. 34 ft = 10.36 m
9. 10 yards = 9.144 m

10. 1 mile = 1.069 km
11. 1 year = 31556736 sec
12. 134 minutes = 2 hr and 14 minutes

13. 856 sec = 14 min and 16 sec
14. 1 hr and 23 min = 83 min
15. 8,923 sec = 2 hr, 28 min, and 43 sec

16. 0.5832 miles = 3079 ft and 3.55 inches
17. 230 mm = .23 m
18. 345 nm = .00345 mm

19. 1,234 miles/hr = 20.57 miles/min
20. 0.56 m/sec = 56 cm/sec
21. 3 km/sec = .003 m/sec

22. 4.56 km/hr = 1.27 m/s
23. 34.6 m/s = 124.56 km/hr
24. 60 miles/hr = 88 ft/sec

25. 23.56 ft/sec = 16.06 miles/hr
26. 60 miles/hr = 2.77x10⁹ ft/year
27. 1 km/hr = .278 m/s