**Dimensional Analysis WS**

**Directions:** Solve USING DIMENSIONAL ANALYSIS (line method). Even if you feel you can solve them a different way, you need to use dimensional analysis because that is the technique we are learning/practicing. Some answers are in bold.

1) Convert 32.7 in into ft \((2.73)\)
2) Convert 20.1 cm to in
3) My cat, Harley, weighs 8.7 lbs. How much does she weigh in kilograms? \((3.95)\)
4) Convert 8.4 Kg into pounds
5) Convert 3100 in to mi \((0.049)\)
6) Convert 14 weeks into seconds
7) Convert 5.93 yards into mm \((5422.4)\)
8) You’re throwing a pizza party for 15 people. Each person will eat 4 slices. You call up the pizza place and find that each pizza will be cut into 12 slices, and each pizza will cost you $14.78. How much is the pizza going to cost you? You only have $70. Will you have enough money? \((73.90, \text{no})\)
9) The bedroom of a house is 1,200 cubic meters. We know that there are \(3.4 \times 10^9\) particles of dust per cubic meter. How many particles of dust are present in the bedroom of our house? Eww!
10) Find out the weight of 6 billion \((6,000,000,000)\) dust particles in pounds, if one dust particle has a mass of \(7.53 \times 10^{-10}\) g.

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