



LESSON: A GIGABYTE OF MUSIC, HOW MUCH IS THAT?

Answer Key

1b. $(1 \text{ mile} / 5280 \text{ feet}) = (5280 \text{ feet} / 1 \text{ mile}) = 1$

c. $(50 \text{ CDs} / \$19.98) = (\$19.98 / 50 \text{ CDs}) = 1$

d. $(1 \text{ mile} / 5280 \text{ feet}) = (5280 \text{ feet} / 1 \text{ mile}) = 1$

e. $(15 \text{ prerecorded songs} / \$15.95) = (\$15.95 / 15 \text{ prerecorded songs}) = 1$

2a. $1 \text{ km} = 1000 \text{ m}$

$1 \text{ km} / 1000 \text{ m} = 1000 \text{ m} / 1000 \text{ m}$

$1 \text{ km} / 1000 \text{ m} = 1$

b. 1 km exactly equals 1000 m and $x/x=1$ if x does not equal zero.

c. 1 CD might not cost exactly $\$10.50$.

d. The numerator and denominator of a fraction must represent quantities that are exactly equal for the fraction to equal exactly 1.

3a. Change $(1 \text{ cm} / \$2)$ to $(\$2 / 1 \text{ cm})$, $\$500$

b. Change $(1 \text{ CD} / 80 \text{ min.})$ to $(80 \text{ min.} / 1 \text{ CD})$, 160 min.

4a. 12.5 CDs

b. 31.25 CDs

c. $114.2857\ldots$ or about 114 minutes

5. 6.3 gigabytes , 720 min.

6. About 128 songs

7. 85.71 CDs

8. $\$150,000,000$ (Most people do not have $\$150 \text{ million}$ to pay the fines.)