

Worksheet – Section 3A

Express the following numbers in three forms: as a reduced fraction, as a decimal (round to three decimal places as needed), and as a percentage (round to two decimal places as needed).

1. 30%

2. $3/7$

3. $8/5$

4. 0.678

5. -1.4357

Express the first number as a percentage of the second number.

6. Amazon's 2020 revenue was \$386 million, compared to Walmart's \$524 million.

7. An estimated 1.2 million species of plants and animals on Earth have been identified out of an estimated 8.7 million species that exist.

Find both the absolute change and the relative change (as a percentage) in the following cases.

8. The estimated number of refugees in the world increased from 8.7 million in 2005 to 26.0 million in 2020.

9. The number of AM radio stations in the United States decreased from 4978 in 1990 to 4560 in 2020.

In Problems 10-13, Fill in the blanks in the following statements.

10. As of 2020, the life expectancy (at birth) of American women (81.1 years) is _____ percent greater than the life expectancy of men (76.1 years).

11. The area of Norway is 24% more than the area of Colorado, so Norway's area is _____ % of Colorado's area.

12. The population of Hawaii is 52% less than the population of Arkansas, so the population of Hawaii is _____ % of the population of Arkansas.

13. The original retail price of a TV is 20% more than its on-sale price. Therefore, the retail price is _____ times the on-sale price.

14. The percentage of people accessing the Internet worldwide increased from 16% in 2005 to 54% in 2020. Describe the change as an absolute change in terms of percentage points and as a relative change in terms of a percentage.

15. Total employment of the Singapore rose by 115,900 in 2010 from the level of 2,990,000 in December 2009. Describe the change as an absolute change and relative change.

16. From 2000 to 2020, the percentage of the world's land area covered by forest dropped by 2.5% to 31.2%. What was the percentage of the world's area covered by forest in 2000?