Watch the video then solve the problems

Finding Simplest Terms

Mr. Granger bought 18 cans of motor oil on sale. What fraction of the case of oil did he buy?

We want to know what part of a case of oil Mr. Granger bought.

Mr. Granger bought ____ cans of oil.

There are ____ cans in a case.

REMEMBER The denominator names the total number of parts, and the numerator names the number of parts you are counting.

$$\frac{\quad}{\quad} = \frac{\text{the number of cans bought}}{\text{the number of cans in a case}}$$

This fraction can be **simplified**. The numerator and the denominator of a fraction are called the **terms** of a fraction. To simplify a fraction, we name it in its lowest terms. We divide the numerator and the denominator by the same non-zero number.

$$\frac{18}{24} \begin{array}{l} \div 6 \\ \div 6 \end{array} = \frac{3}{4}$$

A fraction is in its lowest terms when the terms cannot be divided by any common factor other than 1.

Mr. Granger bought ____ of a case of oil.



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Simplify.

1. $\frac{10}{15} =$ 2. $\frac{6}{9} =$ 3. $\frac{4}{12} =$ 4. $\frac{5}{10} =$ 5. $\frac{6}{18} =$

6. $\frac{4}{20} =$ 7. $\frac{4}{24} =$ 8. $\frac{4}{16} =$ 9. $\frac{8}{12} =$ 10. $\frac{9}{18} =$

11. $\frac{6}{12} =$ 12. $\frac{14}{16} =$ 13. $\frac{15}{25} =$ 14. $\frac{6}{10} =$ 15. $\frac{3}{12} =$

16. $\frac{16}{20} =$ 17. $\frac{9}{12} =$ 18. $\frac{24}{48} =$ 19. $\frac{8}{16} =$ 20. $\frac{8}{32} =$

21. $\frac{10}{12} =$ 22. $\frac{16}{24} =$ 23. $\frac{4}{8} =$ 24. $\frac{27}{36} =$ 25. $\frac{12}{16} =$

26. $\frac{16}{48} =$ 27. $\frac{14}{21} =$ 28. $\frac{20}{25} =$ 29. $\frac{40}{100} =$ 30. $\frac{26}{52} =$

Now Try This!

To simplify fractions, we find the **greatest common factor** of the numerator and the denominator. The greatest common factor is the greatest common factor of two or more numbers. For example, the fraction $\frac{8}{12}$ can be simplified by finding the **prime factors** of each. Prime factors are **prime numbers** that when multiplied make a product. A prime number is a number greater than zero that has exactly two factors, 1 and the number itself.

8	12
4×2	4×3
$2 \times 2 \times 2$	$2 \times 2 \times 3$

8 and 12 have 2×2 in common, so the greatest common factor is _____.

$$\frac{8}{12} \div \frac{4}{4} = \frac{2}{3}$$

Find the prime factors.

1. 36 2. 24 3. 21

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