

REVIEW QUESTIONS AND SUGGESTIONS

N. E. Steele, Ex. Sec'y, SDEA

7th Grade Arithmetic

Within the month the writer encountered some high school seniors and some college freshmen who were unable to solve a type of fraction frequently encountered. Example: Numerator is 21; denominator is 1 minus $\frac{1}{4}$ plus $\frac{9}{16}$. The solution of this complex fraction involves the steps needed for a review of the processes involved in solving common fraction problems. Reduction of 1, $\frac{1}{4}$, and $\frac{9}{16}$ to equivalent fractions having a common denominator, namely $\frac{16}{16}$, $\frac{4}{16}$, and $\frac{9}{16}$; the addition and subtraction of numerators of fractions having a common denominator, namely 16 minus 4 plus 9. The resulting fraction is $\frac{21}{16}$. We now have the original fraction in the form, numerator 21, denominator 16. The next step is the division of the numerator by the denominator; the denominator being inverted we now have a problem in multiplication of fractions, namely $21\frac{1}{16} \times \frac{16}{21}$. The multiplication is accomplished by cancellation and the result is the whole number 16, which is the value of the original complex fraction, expressed as an integer. This type of problem should be presented, not as a new difficulty, but as an opportunity to review skills in solving fractions that the pupil already has acquired.

Science

One other fact in addition to the earth's revolution around the sun causes changes of seasons on earth. What is this fact? Show that without this fact, even though the earth does revolve around the sun, it would experience no changes of seasons.

The course of study lists Saturn as the planet of our solar system having the largest diameter. Use the school dictionary to make a list of the planets with the diameter of each to test the accuracy of this statement.

Mercury always shows the same hemisphere to the sun, and the moon always shows the same hemisphere to the earth. What has to be true of the speed of rotation and of revolution of each of these bodies if this is true?

Between the orbits of Mars and Jupiter is the orbit of the asteroids. There are hundreds of these asteroids, the largest, Ceres, is about 500 miles in diameter, and only three others are more than 100 miles in diameter. From where did these asteroids come?

What is the galactic system? The nearest star of this system is 4.23 light years from us. How far is that? If a star is 8 light years from us,

how long ago did the particles of light from this star that strike us this instant leave it?

History

Slavery, tariff, and states' rights may be regarded as three remote causes of the Civil War; what is a remote cause of war? An immediate cause of war?

Explain how inventions widened the schism between the North and the South. List some of these inventions. Show how each of these inventions influenced the tariff issue.

Name several federal laws that divided the North and the South, and give the provisions of each law in one or two general statements.

Who were Garrison, Brown, Stowe? What is meant by nullification? Compare the Kentucky and Virginia Resolutions and the Nullification Act of South Carolina as to similarities and differences.

Who were Douglas, Phillips, Lovejoy, Lundy, Lincoln?

What states formed the Confederate States of America? Why did not Missouri join this confederacy? Kentucky?

Civics

Just how did each of the 13 original states ratify the constitution of the U. S.? How did this method of ratification make the constitution binding upon the people as the supreme law of the nation? Explain how the constitution of the United States became binding upon each of the states that entered the Union later.

South Dakota accepted the federal constitution as the supreme law of the Nation when she became a state in 1889. How is the constitution of the state and of the U. S. binding upon citizens of South Dakota who have become voters since 1889?

By what provisions do the citizens of a community establish a city, township, county, or school district? Why, within limits defined in our state constitution, can our state legislature change the laws respecting these units of local government?

Geography

Locate and bound the kingdom of Ethiopia. Locate each Italian, each French, and each British possession in Africa. From a map of Europe, Asia, and Africa discuss the reasons why Great Britain fears the attempt of Italy to secure control of Ethiopia. From the same maps discuss the reasons why France is hesitant to break with Italy. Present an account of the natural resources of Italy, Italian colonial possessions, and