

8th Grade
AMI Packet
#15



AMI Day 15 - Write Notes 2 times then read Aloud

DIFFERENT BASE

* Multiplying Bases

$$5^3 \cdot 2^3 = 5 \cdot 2 \times 5 \cdot 2 \times 5 \cdot 2$$

$$10 \times 10 \times 10 = 10^3$$

So when you have different bases and same exponent, you keep the exponent and multiply the bases.

* Zero exponent - ANY number to the zero exponent equals ONE.

$$4,263^0 = 1$$

$$5^0 = 1$$

$$-4,632^0 = 1$$

$$.4321^0 = 1$$

$$444^0 = 1$$

ALWAYS

1) a. $\frac{10^5}{10^5}$

d. $(\frac{5}{4})^2$

b. $(\frac{2}{3})^3$

e. $(3^4)^0$

c. $2^8 \cdot 2^8$

f. $(\frac{7}{2})^2$

2) a. $6^4 \cdot 7^4 =$

d. $-7^{14} \cdot 6^{15} =$

b. $.127^{-6} \cdot .126^{-6} =$

Why can't you use the rules?

c. $4 \cdot 6^{12} \times 2^{12} =$

Name: _____

Author's Purpose Activity

Directions: Read the descriptions of each item and determine the author's main purpose (to entertain, persuade, or inform). Then, in a sentence or two, explain your answer.

1. A story about a family trying to stick together and survive through the Great Depression in the Midwest in the 1930s

Author's Purpose: _____

Explain Your Answer:
Write a sentence or two.

2. A section in a history book describing the conditions and causes of the Great Depression in the Midwest in the 1930s

Author's Purpose: _____

Explain Your Answer:
Write a sentence or two.

3. An instructional booklet describing how to operate a smart phone

Author's Purpose: _____

Explain Your Answer:
Write a sentence or two.

4. An article where the author argues that an iPhone is better than an Android phone

Author's Purpose: _____

Explain Your Answer:
Write a sentence or two.

5. A poem about why the iPhone is the greatest consumer electronic device ever made

Author's Purpose: _____

Explain Your Answer:
Write a sentence or two.

6. The story of a young athlete who takes steroids and his life and future fall apart

Author's Purpose: _____

Explain Your Answer:

Write a sentence or two.

7. A medical report describing the effects of steroids on the human body

Author's Purpose: _____

Explain Your Answer:

Write a sentence or two.

8. A speech written by a professional athlete listing the negative effects of steroids and urging young athletes to not use steroids

Author's Purpose: _____

Explain Your Answer:

Write a sentence or two.

9. A booklet containing the school rules and the consequences for violating those rules

Author's Purpose: _____

Explain Your Answer:

Write a sentence or two.

10. A story written about a young boy who moves to a new school and is bullied, but he gains self-confidence by joining a sports team and learns to stand up for himself.

Author's Purpose: _____

Explain Your Answer:

Write a sentence or two.

Day 15

Name: _____

Electromagnetic Spectrum

Directions: Read through each question & find the correct answer in one of the 3 columns below. Shade in the answer box with the color given & then color the picture on the next page accordingly.

*If the color is white, just circle the answer.

#	Question	Answer Choice A	Answer Choice B	Answer Choice C
1	Which electromagnetic waves have the highest frequencies and the shortest wavelengths?	Microwaves Color YELLOW	Visible light Color RED	Gamma rays Color LIGHT PURPLE
2	Which electromagnetic waves are used in ovens & cell phone communications?	Infrared rays Color BLUE	Microwaves Color LIGHT ORANGE	Ultraviolet rays Color GREEN
3	_____ are used in broadcasting.	Radio waves Color LIGHT GREEN	Infrared rays Color PURPLE	X-rays Color LIGHT BLUE
4	Electromagnetic waves that help your body produce vitamin D are called _____.	Ultraviolet rays Color LIGHT BLUE	X-rays Color ORANGE	Gamma rays Color PINK
5	For waves in any medium, as the wavelength decreases, what happens to the frequency?	It also decreases Color LIGHT GRAY	It stays the same Color BROWN	It increases Color LIGHT YELLOW
6	How much of the electromagnetic spectrum is made up of visible light?	Only a small portion Color DARK PURPLE	A very large portion Color LIGHT BLUE	About half Color PINK
7	Which of the following has wavelengths longer than microwaves?	Infrared waves Color ORANGE	Radio waves Color RED	Visible light Color GREEN
8	Which electromagnetic waves allow us to diagnose & treat cancer?	Gamma rays Color DARK GRAY	X-rays Color LIGHT ORANGE	Ultraviolet rays Color PURPLE
9	The electromagnetic spectrum includes the complete range of electromagnetic waves placed in order of:	Increasing amplitude Color GRAY	Increasing wavelength Color YELLOW	Increasing frequency Color BROWN
10	Which of the following has frequencies higher than ultraviolet rays?	Visible light Color GREEN	Infrared rays Color GRAY	X-rays Color DARK GREEN
11	Which electromagnetic waves help doctors detect broken bones inside your body?	Gamma rays Color PURPLE	X-rays Color DARK YELLOW	Ultraviolet rays Color TAN
12	Which of the following lists the electromagnetic waves in order of increasing wavelength?	X-rays, visible light, radio waves Color BLUE	Gamma rays, microwaves, UV rays Color BLACK	Infrared rays, radio waves, x-rays Color ORANGE
13	Which electromagnetic waves are used in devices such as heat lamps & TV remote controls?	Ultraviolet rays Color BROWN	Microwaves Color DARK GREEN	Infrared rays Color PINK
14	Which of the following lists the electromagnetic waves in order of decreasing frequency?	X-rays, microwaves, infrared rays Color PURPLE	UV rays, visible light, x-rays Color BLUE	Infrared rays, microwaves, radio waves Color LIGHT GRAY
15	Radar uses which type of electromagnetic waves to detect objects & measure their distance and speed?	Microwaves Color RED	Infrared rays Color LIGHT GREEN	X-rays Color BLACK

8th Grade Arkansas History AMI Day 15 (4/14/2020)

Directions: Use the reading passage on the next page to answer the following questions. The questions go in order with the passage. You do not have to write in complete sentences, but make sure you thoroughly answer each question.

Questions from Progressivism

1. What were two "progressive" reforms planted in Arkansas during the nineteenth century?
2. What organization opened a chapter in Arkansas in 1879, and women from all corners of the state began to agitate against demon rum?
3. What was the ultimate goal of the Arkansas Prohibition Alliance?
4. What did the Newberry Act of 1915 do?
5. Although women played an important role in the fight for prohibition, what had they been seriously hampered by?
6. The suffrage movement gained an important ally with the election of which governor?
7. Fill-in-the-blank: Arkansas subsequently became the _____ in the South to ratify the _____ in 1920.
8. Another progressive reform that had roots in the nineteenth century involved the end of which system?
9. How did governor George Washington Donaghey effectively end the convict lease system in Arkansas?

Questions from A Crisis in Education

10. What were some efforts to reform the public school system in the early twentieth century that met with some success in the decades that followed? (list 4)
11. What did the Hall Net Income Tax Law do in 1929?
12. How did Governor Futrell solve the school funding problem, at least for a time?

Early Twentieth Century, 1901 through 1940

Progressivism

The seeds of at least some "progressive" reforms were planted in Arkansas during the nineteenth century: prohibition of liquor and women's suffrage. The Women's Christian Temperance Union (WCTU) opened a chapter in Arkansas in 1879, and women from all corners of the state began to agitate against demon rum. They adopted the strategy of local option, which involved allowing voters in distinct localities to decide on whether the sale of liquor would be permitted. They were joined in 1886 by the Arkansas Prohibition Alliance, an organization that excluded female members and, by 1912, were using another progressive measure, the initiative, in an attempt to achieve their ultimate goal: a statewide ban against the sale of alcohol. Arkansas voters in 1910 had approved a constitutional amendment validating the use of the initiative and referendum. The former provided the electorate with a greater role to play in initiating laws; the latter could reject laws passed by the legislature with which the electorate did not agree. Under the provisions of the initiative, voters in 1912 circulated petitions to place a prohibition measure on a ballot but failed to secure enough votes for passage. Prohibitionists turned their attention to the legislature and successfully pressured it to pass the Newberry Act in 1915, which effectively banned the manufacture and sale of alcohol in the state, followed by the "Bone Dry" law in 1917.

Women had played an important role in the fight for prohibition, but they had been seriously hampered by their inability to vote. In the 1880s and 1890s, some women's magazines and clubs championed enfranchisement, but other women's organizations refrained from openly supporting voting rights for women. Women's book clubs, which began to proliferate in communities throughout the state, typically confined themselves to promoting literacy and libraries, but other women became activists of a sort. The WCTU, for example, was heavily peopled by church women who had first developed a taste for activism through their association with organizations sponsored by their churches. For some women, it was a short step from the fight against demon rum to the struggle for voting rights. The suffrage movement gained an important ally with the election of Governor Charles Brough in 1916. His wife, Anne, was dedicated to the issue and, with her husband, helped convince the legislature in 1917 to allow women to vote in primary elections. Arkansas subsequently became the second state in the South to ratify the nineteenth amendment in 1920.

Another progressive reform that had roots in the nineteenth century involved the end of the convict leasing system. Arkansas used convict leasing as a revenue-generating measure, but prisoners were often kept in horrible conditions, and Arkansas governors began to agitate for its abolition in the 1880s. By the turn of the century, the situation was approaching a national scandal, and in 1912, Governor George Washington Donaghey, who had been unable to convince the legislature to act, simply furloughed 360 prisoners from prison, thus making it impossible to furnish enough prisoners to honor convict leasing contracts. That effectively ended the system in Arkansas.

A Crisis in Education

Progressives were concerned about Arkansas's educational system, but the desire for improvements to education extended beyond the Progressive Era. The under-funded public school system, which itself was only

a few decades old, became the preoccupation of those who sought to expand literacy in the state. In 1900, Arkansas schools ranked among the worst in the country in all indices: school attendance, length of school term, per pupil expenditure, ratio of students to teachers, and educational level of teachers. In addition, the total number of school districts in the state far exceeded a level the state could support. In 1900, there were 4,903; by 1920, there were 5,118. Efforts to reform the system began in the early twentieth century and met with some success in the decades that followed: the creation of a new state board of education and a literacy commission, increased support for high school education, enactment of a compulsory attendance law, and the founding of local and county boards of education. Despite these improvements, a federal survey conducted in 1921–1922 concluded that Arkansas's children received an education that put them at a distinct disadvantage in the modern world. An intractable problem was devising a strategy that would adequately fund the state's schools. The revenue generated from property taxes in rural areas was vastly insufficient, and a different tax structure had to be devised, one that shifted the burden away from the rural areas and required citizens in towns and cities to share the burden of educating all the state's children. The legislature responded to pressure by passing a severance tax with all proceeds accruing to public education, but an income tax, and later a tobacco tax, also earmarked for education, were declared unconstitutional. The legislature subsequently restructured the tobacco tax in a way that passed muster with the Arkansas Supreme Court. In 1929, the legislature enacted the Hall Net Income Tax Law, which established a system of equitable taxation on incomes, a system of taxation that did not place most of the burden on rural Arkansans. Some rural schools were consolidated, a school bus system was inaugurated, and the school term was lengthened. But the Great Depression ended reform, and by the early 1930s, many teachers were accepting worthless county scrip as payment for their services. A new crisis in education faced Junius Marion Futrell, who was elected to governor in 1932.

Futrell, who believed that anything beyond an eighth grade education should be reserved for the privileged few, set about enacting his campaign pledge: retrenchment, and for him, this meant a reduction in state expenditures. He became embroiled in a controversy with the federal government when he used Federal Emergency Relief Administration (FERA) funds to pay teacher salaries. When Harry Hopkins, director of FERA, threatened to cease funding all federal programs in Arkansas, including the farm program of the Agricultural Adjustment Administration (AAA), something close to the hearts of the politically powerful eastern Arkansas planters, Futrell ultimately called for the repeal of prohibition so liquor sales could be taxed. He also supported the legalization of gambling, which provided for the opening of a dog track in West Memphis (Crittenden County) and a horse-racing track in Hot Springs (Garland County), both of which would be subject to taxation. He later endorsed a tax on retail sales. The school funding problem had been solved, at least for a time.

Source: <https://encyclopediaofarkansas.net/entries/early-twentieth-century-1901-through-1940-403/>