



Dear High School Scholar:

Below you will find your Summer Mathematics Packet. Download the packet and complete the problems. If you are unable to download the packet, you may pick up one in the Main office at NMTCS. Make sure you show your work for each problem. Showing your work is worth 60% and the correct answer is worth 40%. This will be your first grade for the school year.

The packet is due in the main office on August 17, 2015.

Because Geometry may be new to some of you, there are several sample problems in your packet. If you need additional help with Geometry or help with Algebra you can try mathematics websites such as:

www.Khanacademy.org or www.regentsprep.org.

You can also make an appointment with a mathematics teacher by emailing me at dtinsonsmith@nmtcs.net.

MATH ASSIGNMENTS

- Entering 9th Grade - Algebra 1 Packet
- Entering 10th Grade - Geometry Packet
- Entering 11th Grade - Algebra 2 Packet

Notes:

- Work must be done in pencil
- You must show the work for each problem
- Do not use paper ripped out of a notebook
- Number each problem
- Put your name on each page
- If you need help make an appointment

HAVE A GREAT SUMMER! SEE YOU IN SEPTEMBER!
THE NMTCS MATHEMATICS DEPARTMENT

5. $0.07 \cdot 4.7$
- a. 32.9
b. 0.329
- c. 0.0329
d. 3.29

Find the greatest common factor of the numbers.

6. 120, 140
- a. 4
b. 168
- c. 840
d. 20

List the first few multiples of each number. Then use the list to find the LCM of the numbers.

7. 12, 21
- a. multiples of 12: 1, 3, 4, 12
multiples of 21: 1, 3, 7, 21
3
- b. multiples of 12: 12, 24, 36, 48, 60, 72, 84
multiples of 21: 21, 42, 63, 84
84
- c. multiples of 12: 24, 36, 48, 60, 72, 84
multiples of 21: 42, 63, 84
84
- d. multiples of 12: 3, 4
multiples of 21: 3, 7
3

Find the sum or difference.

8. $9\frac{7}{13} - 6\frac{9}{13}$
- a. $2\frac{11}{13}$
b. $3\frac{11}{13}$
- c. $2\frac{10}{13}$
d. $3\frac{10}{13}$

9. $\frac{3}{6} - \frac{3}{8}$
- a. $\frac{1}{8}$
b. $\frac{7}{48}$
- c. $\frac{3}{7}$
d. $\frac{3}{16}$

Find the product.

_____ 10. $\frac{2}{5} \cdot \frac{1}{2}$

a. $\frac{1}{5}$

b. $\frac{4}{5}$

c. $1\frac{1}{4}$

d. 5

_____ 11. $\frac{1}{3} \cdot 9\frac{1}{4}$

a. $3\frac{1}{12}$

b. $\frac{12}{37}$

c. $3\frac{1}{24}$

d. $3\frac{1}{8}$

Find the quotient.

_____ 12. $\frac{13}{8} \div \frac{5}{8}$

a. $2\frac{3}{5}$

b. $\frac{5}{13}$

c. $2\frac{5}{8}$

d. $\frac{3}{8}$

Write the decimal as a fraction or mixed number.

_____ 13. 0.145

a. $\frac{29}{200}$

b. $\frac{29}{100}$

c. $\frac{29}{2000}$

d. $1\frac{9}{20}$

_____ 14. $7.\overline{037}$

a. $7\frac{17}{45}$

b. $7\frac{37}{99}$

c. $7\frac{17}{450}$

d. $7\frac{37}{990}$

Write the fraction or mixed number as a decimal.

- ___ 15. $\frac{7}{8}$
a. 7.00
b. 0.087
c. 1.14286
d. 0.875

- ___ 16. $7\frac{4}{7}$
a. $\frac{7.571428}{\quad}$
b. $\frac{7.5714285714}{\quad}$
c. $\frac{7.5714285714}{\quad}$
d. $\frac{7.571428}{\quad}$

Write the decimal or fraction as a percent.

- ___ 17. $\frac{139}{20}$
a. none of these
b. 570%
c. 700%
d. 695%

- ___ 18. 0.728
a. 0.0728%
b. 7.28%
c. 72.8%
d. 0.728%

Write the percent as a decimal and as a fraction or mixed number.

- ___ 19. 145%
a. 1.45, $1\frac{9}{20}$
b. 14.5, $14\frac{1}{2}$
c. 0.145, $\frac{29}{200}$
d. none of these

- ___ 20. 49.7%
a. 0.0497, $\frac{497}{10000}$
b. 49.7, $49\frac{7}{10}$
c. 4.97, $4\frac{97}{100}$
d. 0.497, $\frac{497}{1000}$

Evaluate the expression.

___ 21. $\frac{3}{4} \cdot \left(\frac{5}{2} - \frac{1}{2}\right)$

a. $1\frac{3}{4}$

c. $\frac{3}{8}$

b. $\frac{3}{2}$

d. 3

Solve the equation.

___ 22. $4x + 9 = 37$

a. 46

c. 5

b. 28

d. 7

___ 23. $-x + 15 + 3x + 15 = -4$

a. -13

c. 17

b. 13

d. -17

___ 24. $-4(x - 4)$

a. $-4x - 4$

c. $-4x + 4$

b. $-4x - 16$

d. $-4x + 16$

Simplify.

___ 25. $5(x - 11) + 8(x - 6)$

a. $13x - 103$

c. $-3x - 103$

b. $13x - 7$

d. $-3x - 7$

Short Answer

Write the prime factorization of the numbers. Then find their LCM.

26. 24, 63 _____

Simplify:

27. $3 + 3(3 + 4)^3$

28. Evaluate $\frac{qr}{q+r}$ when $q = 8$ and $r = 13$.

29. Simplify $7 \times 7 + 15 - 6 \div 2$.

Use a number line to order the integers from least to greatest.

30. $-265, 340, -180, 240, -325$

Order the numbers from least to greatest.

31. $2\frac{5}{6}, \frac{29}{12}, 2\frac{2}{3}, \frac{11}{4}$

Find the sum or difference.

32. $7.35 - 0.35$

Find the greatest common factor of the numbers.

33. 36, 24, 60

Find the LCM of the numbers using prime factorization.

34. 24, 18

Find the sum or difference.

35. $8\frac{1}{3} + 7\frac{3}{10}$

Find the sum or difference. Simplify if possible.

36. $\frac{1}{5} + \frac{6}{20}$

Find the quotient. Simplify if possible.

37. $1\frac{2}{7} \div 4$

Write the decimal as a fraction or mixed number in simplest form.

38. 15.43

Write the fraction or mixed number as a decimal.

39. $\frac{5}{9}$

40. $8\frac{13}{16}$

Write the decimal or fraction as a percent.

41. 9.7

42. $\frac{1}{16}$

Write the percent as a decimal and as a fraction.

43. 0.03%

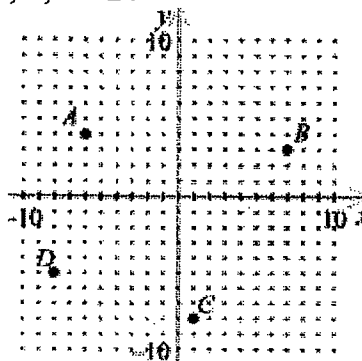
44. 39%

45. Evaluate the expression $(5 - 36 \div r^2)^2 \cdot 7$, given $r = 3$.

Evaluate the expression when $x = 1.6$ and $y = 4$.

46. $3x + 5y$

47. Name the coordinates of the points A , B , C , and D .



48. Write $6x - 7y = 3$ so that y is a function of x .

Solve the equation.

49. $\frac{3}{15}y + 15 = 0$

50. $5n - 2(n - 2) = -11$
