

Study Guide – Unit 4 Expressions, Equations, & EOTT

Name _____

M6A3. Students will evaluate algebraic expressions, including those with exponents, and solve simple one-step equations using each of the four basic operations.

Define.

1) Equation - _____

2) Algebraic Expression - _____

Evaluating Expressions: Find the value of each expression when **a = 5** and **b = 7**.

3) a^3	4) $a^2 + b$	5) $ab - 2a$
Answer:	Answer:	Answer:

One step equations: Solve for the value of the variable. Show your work!

6) $x + 12 = 43$	7) $47 = 7.2 + y$	8) $x - 4 = 85$	9) $\frac{3}{4} = x - \frac{1}{8}$
Answer:	Answer:	Answer:	Answer:

10) $\frac{1}{3}y = 8$	11) $102 = 17m$	12) $\frac{r}{5} = 4.2$	13) $\frac{x}{9} = 31$
Answer:	Answer:	Answer:	Answer:

Write an expression for each phrase.

14) The quotient of d and 20

15) The product of f and 9

Evaluate the formula.

16) $A = \frac{1}{2}bh$,
Find A if $b = 10\text{cm}$ and $h = 5\text{cm}$.

17) $d = rt$,
Find d if $r = 34\text{ m/sec}$ and $t = 6\text{ sec}$.

M6D1 Students will pose questions, collect data, represent and analyze the data, and interpret results.

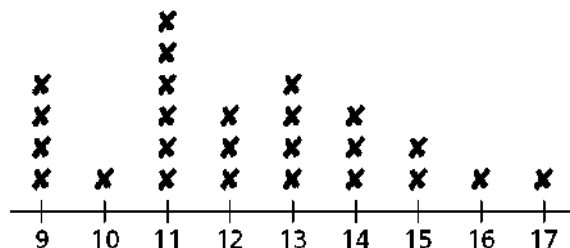
The table below shows the number of birthday cards a shop sold each day in a two-week period.

Sun	Mon	Tues	Wed	Thurs	Fri	Sat
10	6	12	5	7	20	17
5	9	2	10	11	15	19

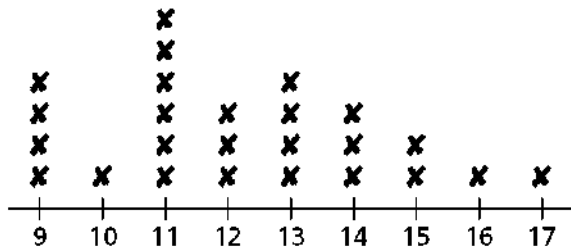
18) Make a line plot showing the Number of Birthday Cards Sold during the two weeks?

19) How many students have a name length of more than 12 letters?

Name Lengths of Mr. Samuel's Students



Name Lengths of Mr. Samuel's Students



19) ~~How many students have a name length of more than 12 letters?~~

20) Sarah wants to make a graph to show the range of animals her classmates have at home, 0-1, 2-3, 4-5. Which type of display would BEST show her data? **Choose from bar, circle, histogram, or line graphs.**

21) A sales manager wants to show the number of sales that each salesperson made. Which is the MOST appropriate display for this data? **Choose from bar, circle, histogram, or line graphs.**

M6N1b Students will decompose numbers into their prime factorization (Fundamental Theorem of Arithmetic).

22) Which is the prime factorization of 80? **Choose one.**

- a) $2^2 \times 5^2$ b) $2^3 \times 5^2$ c) $2^4 \times 5$ d) $2^4 \times 5^2$

23) The prime factorization of a number is $3^2 \times 5^2$. What is the number?

M6N1c Students will determine the GCF and the LCM for a set of numbers.

24) What is the least common multiple of 14 and 24?

25) The ice cream truck comes every 4th day. The sandwich truck comes every 6th day. Which day will both trucks come to Tom's job?

26) What is the GCF of 36 and 48?

M6N1d,e Students will add, subtract, multiply and divided mixed numbers.

Perform the indicated operation. Simplify your answer, if possible.

27) $2\frac{1}{4} + 7\frac{2}{3}$	28) $15\frac{5}{16} - 9\frac{3}{4}$	29) $3\frac{1}{8} \div 6\frac{1}{4}$

30) Larry decides to use a recipe for a cake that requires $2\frac{2}{3}$ cups of flour. How many cups of flour will he need if he triples the recipe?

M6N1f Students will use fractions, decimals, and percents interchangeably.

31) What are the decimal and percent equivalents of the fraction $\frac{3}{8}$?

31) What is 55% of 500?

M6N1g Students will solve problems involving fractions, decimals, and percents.

Constructed Response:

Tonya visited McDonald's last week and placed the following order:

Big Mac Meal \$4.99
Strawberry Milkshake 2.24

With the 7% sales tax included, how much did Tonya pay for her meal?