MATH 143 WITH MATH 143P

(No Calculators)

1. Evaluate $-4^2 + 2(2-6)^2$
2. Evaluate $log_4(16)$
3. Identify the slope and y-intercept of the line $3x + 5y = 15$
4. Simplify $\frac{x^{-2}y^3}{x^4y^{-6}}$
5. Simplify $(7 \times 10^{-8})(9 \times 10^{-6})$. Write your answer in scientific notation.
6. Factor completely: $3y^3 - 36y^2 + 96y$
7. Identify the domain and range of the function $y = -12x + 48$
8. Write an equation of the line that passes through the points (2, 3) and (1, 5).
9. Solve the equation $\frac{2}{3}x + 2 = 10$
10. Simplify $2 - 7(w - 8)$
11. Use unit analysis to change $\frac{40\ mi}{1\ hr}$ into $\frac{ft}{s}$. (4-function calculator allowed)
12. The function $y = \frac{65\ words}{1\ min}x + 850\ words$ represents the relationship of the number of words typed, y, and the time spent typing in minutes, x. Explain what the y-intercept represents.

Answers:

1. 16
2. 2
3. Slope $= -\frac{3}{5}$, y-intercept: (0,3)
4. $\frac{y^9}{x^6}$
5. 6.3×10^{-13}
6. $3y(y-8)(y-4)$
7. $D = (-\infty, \infty), R = (-\infty, \infty)$
8. $y - 3 = -2(x-2)$
9. $x = 12$
10. $-7w + 58$
11. $58.\overline{7}\ \frac{ft}{sec}$
12. At the beginning of typing, 850 words were typed

MATH 157 WITH MATH 157P

(No Calculators)

1. Evaluate $-4^2 + 2(2-6)^2$
2. Evaluate $\frac{3}{5} - \frac{2}{7}$
3. Identify the slope and y-intercept of the line $3x + 5y = 15$
4. Simplify $\frac{x^{-2}y^3}{x^4y^{-6}}$
5. Simplify $(7 \times 10^{-8})(9 \times 10^{-6})$. Write your answer in scientific notation.
6. Which property of arithmetic is represented in the following equation: $(2 + 29) + 13 = (29 + 2) + 13$?
7. Convert 7520 cm to km.
8. Identify the domain and range of the function $y = -12x + 48$
9. Write an equation of the line that passes through the points (2, 3) and (1, 5).
10. Solve the equation $9x = 6x$
11. Simplify $2 - 7(w - 8)$

Answers:

1. 16
2. $\frac{11}{35}$
3. Slope $= -\frac{3}{5}$, y-intercept: (0,3)
4. $\frac{y^9}{x^6}$
5. 6.3×10^{-13}
6. Commutative Property of Addition
7. 0.0752 km
8. $D = (-\infty, \infty), R = (-\infty, \infty)$
9. $y - 3 = -2(x-2)$
10. $x = 0$
11. $-7w + 58$

LEWIS CLARK STATE COLLEGE

MATH PLACEMENT
MATH 143 AND MATH 157

Course descriptions are shown below. Sample problems for each math course are on the back of this pamphlet. The expectation is that you know how to do these problems when entering the course. Do you recognize these problems? Can you complete them all correctly? This, along with your High School GPA, GED, or SAT/ACT scores, can help you determine how much review you need and the pacing you'll want to complete your math courses.

Have a conversation with your advisor, and consider these questions when choosing your course pace.

- How many credits are you taking this semester?
- How many hours per week do you work?
- What other personal time commitments do you have?
- How confident do you feel in math?
- Have you attempted a college math course in the past?
- Have you recently completed high school Algebra II with an A or B?
- Each 1 credit in college requires 2 hours of study time outside of class per week. A 3-credit math course would typically require 6 hours outside of class time per week. Have you set aside the time to successfully complete a math course this semester?

MATH 143: COLLEGE ALGEBRA — 3 CREDITS

Emphasis on the concept of real-valued functions and their applications, including domain, range, algebraic operations, composition, inverses, and graphing. Topics include polynomial functions, division of polynomials, roots of polynomials, theory of equations, complex numbers, fundamental theorem of algebra, rational functions and asymptotes, logarithmic and exponential functions, transformations, solving systems of linear and nonlinear equations, and matrices. Students will engage in multi-step algebraic manipulation of complicated functional expressions. (Placement: Level D or higher)

MATH 143P: SUPPLEMENTAL INSTRUCTION FOR COLLEGE ALGEBRA — 2 CREDITS

The course provides embedded instruction of skills necessary for college algebra. Topics may include absolute value, factoring trinomials, function notation, exponents and logarithms, systems of linear equations, simplifying rational and radical expressions, solving rational and radical equations, graphing, and inequalities. (Placement: Level C or higher)

MATH 157: MATHEMATICS FOR ELEMENTARY TEACHERS I — 4 CREDITS

This course provides an overview of some of the mathematics taught in grades K-8 with an emphasis on conceptual understanding and communication of mathematical principles. This is the first course in a two-course sequence of mathematics content courses which is not intended to be a methods of teaching course. Topics may include numbers and the base-ten system; fractions and problem-solving; addition, subtraction, multiplication, and division of real numbers; ratio and proportional relationships; and number theory. (Placement: Level D or higher)

MATH 157P: SUPPLEMENTAL INSTRUCTION FOR MATH 157 — 1 CREDIT

This course provides just-in-time preparation of the mathematical skills necessary to be successful in MATH 157 and MATH 257 with an emphasis on problem-solving and college-readiness skills. Topics may include accuracy vs precision, order of operations, number theory, fraction and decimal arithmetic, percent, properties of real numbers, conversions and unit analysis, geometry and measurement, factoring, mental math, exponents and scientific notation, lines and graphing, probability, and statistics. (Placement: Level C or higher)