Guide to Achieve a Level 1 Math Placement

*To get a sense of what you will need to achieve a Level 1 placement on the exam, you should be able to do this practice test without use of a calculator. Exam questions will be similar to how they appear here and answer boxes will be provided on the exam as shown below. Only numbers may be entered into the boxes, no letters or symbols. The only acceptable symbol is " − " to represent a negative number. When checking your answers to this guide, your answer must match exactly to be correct. *These are NOT the exact problems from the exam.*

1. Multiply the following two numbers.

$$\begin{array}{r} 3171 \\ \times 68 \\ \hline \end{array}$$

2. Add the fractions and express your answer in lowest terms.

$$\frac{5}{8} + \frac{1}{9}$$

3. Add the numbers $4\frac{2}{9} + 2\frac{5}{9}$ and express your answer as a single fraction in lowest terms.

4. Divide the fractions and express your answer in lowest terms.

$$\frac{12}{5} \div \frac{11}{2}$$

5. Calculate $\left(\frac{5}{8}\right)^2$ in lowest terms.

6. Write 0.55 as a fraction in lowest terms.

7. Calculate $|-32+5|$

8. Calculate $8-(-5)-(13-17)$

9. Calculate $-16+21+14-(8-12)$

10. Calculate $17-4(3+8)$

11. Simplify the expression $2(5x+2)-(3x-7)$ to one of the form $ax+b$.

$a=$

$b=$

12. Write an equivalent expression for $2(5x+4)-(5x+4)-6x-8$ of the form $ax+b$

$a=$

$b=$

13. Simplify the expression $(3x^2+2x-3)-(4x^2-2x-6)$ to one of the form ax^2+bx+c.

$a=$

$b=$

$c=$

14. Evaluate the expression x^2-6x+7 for $x=-3$.

15. Solve for x: $14 = -3x - 7$

16. Solve for x: $4x + 7 = 1 - 9x$

17. Solve for x: $3(x + 1) = 2 - 5(2x + 3)$

18. Solve for x: $\frac{1}{4}(x - 3) + \frac{3}{4}(x + 1) = 7x + 5$

19. Calculate the slope of the line going through the points $(2, 2)$ and $(5, 8)$.

20. Find the equation of the line going through the points $(4, 3)$ and $(3,7)$ in the form $y = mx + b$.

$m =$

$b =$

21. Find the y-intercept of the line with equation $4x + 5y = 11$

$y =$

Answers:

1. Multiply the following two numbers.

3171
x68

215628

2. Add the fractions and express your answer in lowest terms.

$\frac{5}{8}+\frac{1}{9}$

53
72

3. Add the numbers $4\frac{2}{9}+2\frac{5}{9}$ and express your answer as a single fraction in lowest terms.

61
9

4. Divide the fractions and express your answer in lowest terms.

$$\frac{12}{5}\div\frac{11}{2}$$

24
55

5. Calculate $\left(\frac{5}{8}\right)^2$ in lowest terms.

24
64

6. Write 0.55 as a fraction in lowest terms.

11
20

7. Calculate $|-32+5|$

27

8. Calculate $8-(-5)-(13-17)$

17

9. Calculate $-16+21+14-(8-12)$

23

10. Calculate $17-4(3+8)$

-27

11. Simplify the expression $2(5x+2)-(3x-7)$ to one of the form $ax+b$.

$a=$ 7

$b=$ 11

12. Write an equivalent expression for $2(5x+4)-(5x+4)-6x-8$ of the form $ax+b$

$a=$ -1

$b=$ -4

13. Simplify the expression $(3x^2+2x-3)-(4x^2-2x-6)$ to one of the form ax^2+bx+c.

$a=$ -1

$b=$ 4

$c=$ 3

14. Evaluate the expression x^2-6x+7 for $x=-3$.

34

15. Solve for x: $14=-3x-7$

-7
1

16. Solve for x: $4x + 7 = 1 - 9x$

$$\frac{-6}{13}$$

17. Solve for x: $3(x + 1) = 2 - 5(2x + 3)$

$$\frac{-16}{13}$$

18. Solve for x: $\frac{1}{4}(x - 3) + \frac{3}{4}(x + 1) = 7x + 5$

$$\frac{-5}{6}$$

19. Calculate the slope of the line going through the points $(2, 2)$ and $(5, 8)$.

$$\frac{2}{1}$$

20. Find the equation of the line going through the points $(4, 3)$ and $(3,7)$ in the form $y = mx + b$.

$m =$ $\frac{-4}{1}$

$b =$ $\frac{19}{1}$

21. Find the y-intercept of the line with equation $4x + 5y = 11$

$y =$ $\frac{11}{5}$