Math Computation & Basic Algebra
Get Into Energy Test Prep

Independent Study Portion: Several of these areas require math skills, such as computation and basic algebra. Candidates who may need to brush up on their math skills can complete this independent study program in advance of the in-person program. Instructors expect that individuals attending the program have already mastered the math competencies below:

- Adding or subtracting whole numbers of one or two digits
- Multiplying or dividing whole numbers of one or two digits
- Adding or subtracting whole numbers of three or more digits
- Multiplying or dividing whole numbers of three or more digits
- Adding or subtracting fractions
- Multiplying or dividing fractions
- Adding or subtracting decimals
- Multiplying or dividing decimals or computing percentages
- Converting fractions to decimals or vice versa
- Using simple formulas to solve for a single unknown

Get started with brushing up on your math skills!

Step 1: For each topic area for which you want to practice, take the quizzes provided.

Step 2: Grade your quizzes using the answer keys provided.

Step 3: Determine which types of problems were the most difficult and/or where you answered in error. These are the areas where you should concentrate your time.

Step 4: Complete the independent study programs for the most appropriate topics using the links provided to Khan Academy online instruction.

Step 5: Where applicable, take additional online practice tests to see if things go smoother than when you first took the quizzes. There are a wealth of free online and printable tests, which can be located by doing a simple internet search.

Section 1: Addition and Subtraction of Whole Numbers

Adding or subtracting whole numbers of one or two digits:

- 1- and 2-digit addition with no regrouping quiz
- 1- and 2-digit addition with regrouping quiz
- 1- and 2-digit subtraction with no borrowing quiz
- 1- and 2-digit subtraction with borrowing quiz

Adding or subtracting whole numbers of three or four digits:

- 3- and 4-digit addition quiz (includes regrouping)
- 3- and 4-digit subtraction quiz (includes borrowing)

Online Instruction:
https://www.khanacademy.org/math/arithmetic-home/addition-subtraction

Section 2: Multiplication and Division of Whole Numbers

Multiplying or dividing one or two digits:

- Math Facts quiz
- 2-digit by 1-digit multiplication quiz
- 2-digit by 2-digit multiplication quiz
- 1- and 2-digit division with no remainders quiz
- 1- and 2-digit division with remainders quiz

Multiplying or dividing three or four digits:

- 3-digit multiplication quiz
- 4-digit multiplication quiz
- 3-digit division quiz (includes remainders)
- 4-digit division quiz (includes remainders)

Online Instruction:
https://www.khanacademy.org/math/arithmetic-home/arithmetic/arith-review-multiply-divide

Section 3: Addition and Subtraction of Fractions

- Adding fractions with like denominators quiz
- Adding fractions with unlike denominators quiz
- Subtracting fractions with like denominators quiz
- Subtracting fractions with unlike denominators quiz

Online Instruction:
https://www.khanacademy.org/math/pre-algebra/pre-algebra-fractions

Section 4: Multiplication and Division of Fractions

- Multiplying fractions quiz
- Dividing fractions quiz

Online Instruction:
https://www.khanacademy.org/math/pre-algebra/pre-algebra-fractions

Section 5: Addition and Subtraction of Decimals

- Adding and subtracting decimals quiz

Online Instruction:
https://www.khanacademy.org/math/pre-algebra/pre-algebra-decimals

Section 6: Multiplication and Division of Decimals and Computing of Percentages

- Multiplying decimals quiz
- Dividing decimals quiz
- Decimals to percentages quiz

Online Instruction:
https://www.khanacademy.org/math/pre-algebra/pre-algebra-decimals

Section 7: Conversion of Fractions to Decimals and Decimals to Fractions

- Decimals and fractions conversions quiz

Online Instruction:
https://www.khanacademy.org/math/pre-algebra/pre-algebra-decimals

Section 8: Using Simple Formulas to Solve for a Single Unknown

- Basic algebra quiz
- Algebra with decimals quiz

Online Instruction:
https://www.khanacademy.org/math/algebra-basics/alg-basics-algebraic-expressions