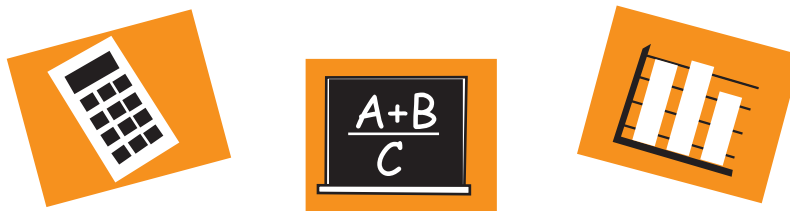


# Functional Independence

Spring 2013



## Mathematics

### *Item Descriptors*

Grade **11**

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**DIRECTIONS:** Read each question. Choose the **BEST** answer for each question.

**NOTE: For each item listed throughout this booklet, the first statement is a summary of the Michigan Extended Grade Level Content Expectation (EGLCE) and the second statement or problem is the descriptor for the item's stem or question.**

- 1 F.11.FI.EB01:** Create, describe, and extend simple number patterns

Find missing number in skip-counting pattern

- A** added 1 to previous number
- B** correct
- C** over by 2

- 2 F.11.FI.EB02:** Find the next number in a simple repeating pattern

Determine rule for skip-counting pattern

- A** correct
- B** divided, instead of subtracted
- C** added, instead of subtracted

- 3 F.11.FI.EB03:** Identify, describe, and extend patterns found in daily life

Find next time in a given pattern involving time

- A** subtracted 30 minutes, instead of adding
- B** correct
- C** added 60 minutes, instead of 30 minutes

- 4 F.11.FI.EB03:** Identify, describe, and extend patterns found in daily life

Describe pattern in calendar

- A** incorrect pattern
- B** incorrect pattern
- C** correct

- 5 G.11.FI.EB01:** Select and use standard tools for measurement

Identify tool for measuring height

- A** tool for measuring time
- B** tool for measuring weight
- C** correct

- 6 G.11.FI.EB03:** Measure and compare integer temperatures

Compare temperatures in degrees Fahrenheit

- A** half of correct difference
- B** correct
- C** temperature on 2nd thermometer

- 7 G.11.FI.EB04:** Read gauges and meters

Read gasoline gauge

- A** correct
- B** more than correct amount
- C** less than correct amount

- 8 G.11.FI.EB08:** Measure perimeter

Find perimeter of rectangle given length and width

- A** area = perimeter
- B** length + width
- C** correct

- 9 G.11.FI.EB10:** Tell time on a radial or digital clock to the nearest 5 minutes

Tell time on radial watch

- A** correct
- B** one hour later than correct time
- C** location of minute hand as hours, location of hour hand as minutes (times 5)

- 10 G.11.FI.EB09:** Convert measurements of length

Convert yards to feet

- A** added yards to 3 feet
- B** correct
- C** 1 yard = 12 feet

- 11 G.11.FI.EB11:** Know equivalent calendar units

Convert years to months

- A** 1 year = 7 months
- B** correct
- C** 1 year = 18 months

- 12 G.11.FI.EB14:** Solve one- and two-step word problems

Subtract measurement in inches in context

- A** correct
- B** 10 inches greater than correct length
- C** added

- 13 G.11.FI.EB13:** Read and interpret schedules

Interpret bus schedule

- A** first arrival time at previous corner
- B** correct
- C** second arrival time at next corner

- 14 G.11.FI.EB12:** Use a calendar and equivalent calendar units

Determine number of weeks between two dates given two calendars

- A** one less week than correct number of weeks
- B** correct
- C** one more week than correct number of weeks

- 15 G.11.FI.EB16:** Tell the amount of money in dollars and cents

Determine amount of money shown given photos of bills and coins

- A** \$10 bill = \$1
- B** correct
- C** quarter, dimes, and nickels = 10 cents

- 16 G.11.FI.EB17:** Add and subtract money in dollars and cents

Subtract money given in decimal notation

- A** subtracted smaller values from greater
- B** correct
- C** correct dollar amount, incorrect number of cents

- 17 G.11.FI.EB17:** Add and subtract money in dollars and cents

Add money given in decimal notation

- A** subtracted
- B** correct number of dollars and cents from first addend
- C** correct

- 18 G.11.FI.EB18:** Round money

Round money given in decimal notation to nearest dollar

- A** round down amount over 50 cents
- B** correct
- C** nearest ten dollars

- 19 G.11.FI.EB20:** Read, interpret, and use maps and grids with legends

Describe directions to location on map

- A** incorrect directions
- B** incorrect directions
- C** correct

- 20 G.11.FI.EB19:** Find and name locations using simple coordinate systems

Identify location of point on coordinate grid

- A**  $(x - 1, y)$
- B**  $(y, x)$
- C** correct

- 21 D.11.FI.EB04:** Describe the shape of data using informal language

Describe data in line graph

- A** correct
- B** opposite description
- C** incorrect description

- 22 D.11.FI.EB07:** Identify data needed to solve a problem

Select description to determine total distance ran

- A** correct
- B** description for starting times
- C** description for elapsed time

**23 N.11.FI.EB01:** Read, write, and count using whole numbers to 100,000

Add 1 to given amount

- A** correct
- B** 10 times correct sum
- C** 100 times correct sum

**24 N.11.FI.EB03:** Express numbers to 100,000 using place value

Identify number with given number in thousands place

- A** correct
- B** ten thousands place
- C** hundreds place

**25 N.11.FI.EB05:** Round whole numbers

Round 3-digit number to nearest hundred

- A** rounded down number over 50
- B** rounded to nearest tens place
- C** correct

**26 N.11.FI.EB04:** Compare and order numbers to 100,000

Identify number less than given 4-digit number

- A** correct
- B** greater than given number
- C** greater than given number

**27 N.11.FI.EB10:** Understand percentages

Identify circle with given percentage of shading

- A** correct
- B** circle with less than given % of shading
- C** circle with considerably less than given % of shading

**28 N.11.FI.EB11:** Convert percentages

Convert fraction to decimal

- A**  $a/b = 0.a0$
- B**  $a/b = 0.b0$
- C** correct



**29 N.11.FI.EB12:** Solve word problems involving percentages

Calculate amount of sales tax given tax rate and monetary value

- A** incorrect amount
- B** incorrect amount
- C** correct

**30 N.11.FI.EB15:** Add and subtract two fractions with like denominators

Add two fractions with like denominators

- A** added numerators and denominators
- B** correct
- C** subtracted

**31 N.11.FI.EB17:** Round money

Round money in decimal notation to nearest dollar

- A** rounded down amount over 50 cents
- B** rounded to nearest dime
- C** correct

**32 N.11.FI.EB13:** Recognize, name, represent, and write fractions

Identify shaded rectangles that match given fraction,  $x/y$

- A** correct
- B** model with  $x$  shaded rectangles and  $y$  nonshaded rectangles
- C** model with  $x + y$  rectangles, completely shaded

**33 N.11.FI.EB14:** Compare and order fractions

List fractions from least to greatest

- A** correct
- B** mixed order
- C** mixed order

**34 N.11.FI.EB16:** Compare and order decimal fractions in relation to money

Compare money given in decimal notation

- A** incorrect comparison
- B** correct
- C** incorrect comparison

**35 N.11.FI.EB19:** Apply estimation in solving problems

Estimate sum

- A** underestimate
- B** correct
- C** overestimate

**36 N.11.FI.EB21:** Solve applied problems

Determine amount of money given rate per hour and number of hours

- A** incorrect total
- B** used rate \$1/hour less than correct rate
- C** correct

**37 N.11.FI.EB21:** Solve applied problems

Multiply with fraction in context

- A** multiplied amount given in item by incorrect fraction
- B** amount given in item
- C** correct

**38 A.11.FI.EB01:** Solve applied problems involving rates

Determine average speed given distance and time

- A** correct
- B** 50 mph less than correct speed
- C** 100 mph less than correct speed

**39 A.11.FI.EB02:** Identify the unknown quantity

Identify addend

- A** total divided by addend
- B** correct
- C** total + addend

**40 A.11.FI.EB03:** Represent information using algebra

Identify equation that matches situation

- A** correct
- B** difference, instead of sum
- C** addend + total = addend





Michigan Department of Education  
Bureau of Assessment and Accountability  
608 West Allegan Street  
P.O. Box 30008  
Lansing, MI 48909  
(877) 560-8378  
[www.mi.gov/mi-access](http://www.mi.gov/mi-access)