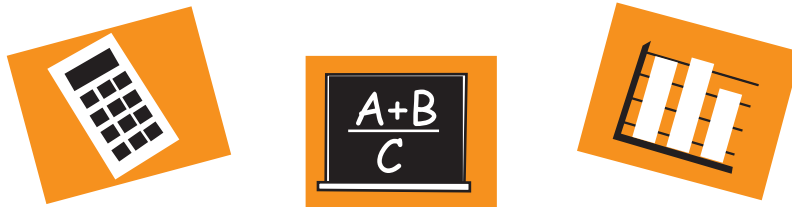


# Functional Independence

Fall 2014



## 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

Find next number in decreasing skip-counting pattern

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

- 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

Use calendar to extend given pattern

- A** skip counted by difference between last two given dates
- B** correct
- C** date two days after correct date

**5 G.11.FI.EB02:** Select appropriate units of measure

Select appropriate unit to measure length

- A** correct
- B** unit of volume (capacity)
- C** inappropriate unit of length

**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.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

**8 G.11.FI.EB04:** Read gauges and meters

Interpret thermostat

- A** did not use scale
- B** correct
- C** 10 degrees over

**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.EB08:** Measure perimeter

Find perimeter of rectangle given length and width

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

**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.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

**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.EB14:** Solve one- and two-step word problems

Subtract lengths in feet, two subtrahends

- A** correct
- B** subtracted only larger subtrahend
- C** sum of two subtrahends

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

Given photos of bills and coins translate into decimal notation

- A** did not include one of the twenty-dollar bills
- B** dime = 5 cents
- C** correct

**16 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

- 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 D.11.FI.EB05:** Solve problems using data in tables, graphs, tallies, and pictographs

Interpret chart with money given in decimal notation

- A** incorrect total
- B** correct
- C** incorrect total

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

Name location of point on coordinate grid

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

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

Interpret map grid

- A** incorrect location
- B** incorrect location
- C** correct

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

Use map to identify state relative to given state

- A** incorrect state
- B** state in opposite direction
- C** correct

- 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 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

- 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.EB01:** Read, write, and count using whole numbers to 100,000

Translate numeral to word form

- A**  $a0,bcd = ab,0cd$
- B**  $10,000 = 1,000$
- 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

Translate ratio to percentage

- A** correct
- B**  $a/b0 = ba\%$
- C** 10% of correct value



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

Determine largest of 3 given percentages

- A** correct
- B** intermediate percentage
- C** smallest percentage

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

Determine fractional portion of shaded diagram

- A** correct numerator/  
incorrect denominator
- B** correct
- C** correct numerator/  
incorrect denominator

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

List fractions from least to greatest

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

**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.EB15:** Add and subtract two fractions with like denominators

Subtract 2 mixed numbers with like denominators

- A** incorrect whole number, correct fraction
- B** incorrect whole number, incorrect fraction
- C** correct

**34 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

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

Divide in context

- A** correct
- B** added
- C** multiplied

**38 N.11.FI.EB18:** Add, subtract, multiply, and divide decimal fractions in relation to money

Add and multiply with money in context

- A** over by \$1
- B** correct
- C** amount for first purchase, did not include second purchase

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

Identify factor in multiplication equation

- A** correct
- B** product
- C** product multiplied by given factor

**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



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