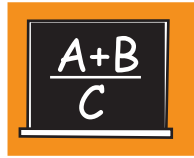


Functional Independence

Fall 2010



Mathematics

Item Descriptors

Grade 8

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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 N.MR.07.FI.EG06:** Create, describe, and extend simple number patterns

Find next number in skip-counting pattern given in table

- A** added 1 to previous number
- B** correct
- C** sum of all numbers in table

- 2 N.MR.07.FI.EG07:** Find the next number in a simple repeating pattern

Determine rule for skip-counting pattern

- A** correct
- B** added first number in pattern
- C** ten = one

- 3 N.MR.07.FI.EG07:** Find the next number in a simple repeating pattern

Determine rule for skip-counting pattern

- A** one hundred = ten
- B** correct
- C** one hundred = one thousand

- 4 N.ME.07.FI.EG02:** Recognize representations for whole numbers to 100,000

Given key and blocks, determine value shown

- A** one hundred = ten thousand
ten = one hundred
- B** one hundred = one thousand
ten = one hundred
- C** correct

- 5 N.ME.07.FI.EG03:** Express numbers to 100,000 using place value

Determine which number has a given number in ten thousands place

- A** correct
- B** given number in thousands place
- C** given number in tens place

- 6 N.ME.07.FI.EG04:** Compare and order numbers to 100,000
- Identify list of numbers ordered from least to greatest
- A** greatest to least
 - B** mixed order
 - C** correct
- 7 M.UN.07.FI.EG02:** Select units of measure
- Select unit of measure for area
- A** correct
 - B** unit of measure for volume
 - C** unit of measure for length
- 8 M.UN.07.FI.EG01:** Use standard tools for measurement
- Identify tool used to measure time
- A** tool used to measure weight
 - B** correct
 - C** tool used to measure length
- 9 M.UN.07.FI.EG01:** Use standard tools for measurement
- Read thermometer in °F
- A** less than correct temperature
 - B** correct
 - C** temperature above highest shown on thermometer
- 10 M.UN.07.FI.EG09:** Convert units
- Convert feet to inches, given 1 foot = 12 inches
- A** added 12 to number of feet
 - B** correct
 - C** twice correct number of inches
- 11 M.UN.07.FI.EG10:** Tell time on a radial or digital clock to the nearest half-hour
- Subtract time from time shown on analog clock
- A** correct
 - B** time shown on clock
 - C** added, instead of subtracted

- 12 M.UN.07.FI.EG10:** Tell time on a radial or digital clock to the nearest half-hour
- Tell time on analog clock
- A** half hour earlier
 - B** correct
 - C** one hour later
- 13 G.LO.07.FI.EG03:** Read, interpret and use maps and grids
- Interpret map to find direction
- A** incorrect direction
 - B** opposite direction
 - C** correct
- 14 G.LO.07.FI.EG02:** Name locations using simple coordinate systems
- Interpret grid to name location
- A** correct
 - B** incorrect location
 - C** incorrect location
- 15 G.LO.07.FI.EG03:** Read, interpret and use maps and grids
- Interpret map to locate building
- A** building in opposite direction
 - B** building in opposite direction
 - C** correct
- 16 M.UN.07.FI.EG11:** Use equivalent calendar units
- Translate days into weeks
- A** too few weeks
 - B** correct
 - C** too many weeks
- 17 M.PS.07.FI.EG12:** Solve word problems
- Calculate elapsed time
- A** correct
 - B** 30 minutes = 1 hour
 - C** 30 minutes = 2.5 hours
- 18 D.RE.07.FI.EG04:** Solve problems using data
- Interpret table to find maximum
- A** minimum
 - B** correct
 - C** neither maximum nor minimum
- 19 D.RE.07.FI.EG01:** Read data
- Translate data into bar graph
- A** all 3 bars incorrect
 - B** correct
 - C** two incorrect bars

- 20 D.RE.07.FI.EG04:** Solve problems using data
- Interpret pictograph with a key of 10
- A** correct
 - B** incorrect category
 - C** did not use scale
- 21 N.FL.07.FI.EG09:** Add and subtract one-, two- and three-digit numbers
- Add two 2-digit numbers
- A** twice the sum
 - B** correct
 - C** 10 less than sum
- 22 N.MR.07.FI.EG14:** Solve simple division problems
- Divide in word problem
- A** correct
 - B** incorrect quotient and remainder
 - C** divisor = quotient
- 23 N.MR.07.FI.EG10:** Solve simple open sentences
- Multiply two 1-digit numbers
- A** added
 - B** used one incorrect factor
 - C** correct
- 24 M.UN.07.FI.EG13:** Recognize equivalent sets of coins and bills
- Identify matching set of coins given bill
- A** dime has value of 25 cents
 - B** nickel has value of 10 cents
 - C** correct
- 25 M.PS.07.FI.EG14:** Tell the amount of money in dollars and cents
- Given bills, determine total value
- A** five-dollar bill has value of one dollar
 - B** correct
 - C** five-dollar bill has value of ten dollars
- 26 N.ME.07.FI.EG15:** Recognize, name, represent and write unit fractions
- Identify fraction represented in shaded figures
- A** correct
 - B** too much shading
 - C** not enough shading

- 27 N.ME.07.FI.EG16:** Place 0 and halves on number line

Identify measurement shown on ruler

- A** did not include fractional portion of measurement
- B** correct
- C** one inch greater

- 28 N.ME.07.FI.EG20:** Understand sum of unit fractions

Add three unit fractions

- A** unit fraction given,
 $1/x + 1/x + 1/x = 1/x$
- B** adds numerator and denominator,
 $1/x + 1/x + 1/x = 3/(3x)$
- C** correct

- 29 N.MR.07.FI.EG18:** Compare and order fractions

Order three fractions from least to greatest

- A** correct
- B** mixed order
- C** greatest to least

- 30 N.ME.07.FI.EG22:** solve decimal fractions up to 2 decimals

Translate fraction to decimal

- A** hundredths = tenths
- B** correct
- C** hundredths = thousandths

- 31 N.FL.07.FI.EG23:** Apply estimation in solving problems

Estimate subtraction in context

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

- 32 N.MR.07.FI.EG24:** Select numbers to solve problems

Add two 3-digit numbers in context

- A** correct
- B** included extra addend
- C** included two extra addends

- 33 N.MR.07.FI.EG25:** Solve applied problems

Multiply in context

- A** one of factors
- B** added
- C** correct

- 34 A.FO.07.FI.EG02:** Represent information using algebra

Translate division word problem into number sentence

- A** correct
- B** multiplication sentence
- C** addition sentence

- 35 A.FO.07.FI.EG02:** Represent information using algebra

Translate multiplication word problem into number sentence

- A** addition sentence
- B** division sentence
- C** correct



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