



Functional Independence

Mathematics

Official Released Items

Grade 11

**Spring 2010
Official Released Items**

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The *Grade 11 Functional Independence Mathematics Assessment* was administered for the first time in Spring 2006. This booklet contains released items from the Spring 2010 administration and is intended to be used by districts to assist in their interpretation of item analysis data. The information contained in this booklet may also be used by schools, teachers, and parents as a resource for understanding the content and format of the assessment items. In addition to MI-Access training materials and Extended Benchmarks (EB), the released items may also have utility in informing decisions related to instruction, curriculum, and assessment. These items are **not** secure and may be copied and distributed as needed.

The table below lists the number of core and released items administered on the Spring 2010 Grade 11 assessment booklet. Core items are those that count toward students' scores. All released items in this booklet were selected from the pool of core items that appeared on the assessment.

Functional Independence Mathematics Grade 11

Mathematics Strand	Number of Core Items
Patterns and Relationships	4
Geometry and Measurement	16
Data Analysis	2
Number Sense and Numeration	15
Numerical and Algebraic Operations	3
Total Core Items/Points	50
Released Items	12 (Numbers vary by strand and topic.)

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

Use the pattern below to answer question **R1**.

21, 27, 33, 39, _____

R1 Which statement describes this pattern?

- A** add 6 to each number
 - B** subtract 6 from each number
 - C** multiply each number by 6
-

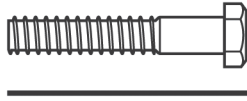
R2 Pat's biology class starts at 11:30 A.M.

The class lasts for 1 hour and 15 minutes.

At what time does the class end?

- A** 12:45 A.M.
- B** 12:45 P.M.
- C** 10:15 A.M.

Use the ruler and the bolt below to answer question **R3**.



R3 How long is the bolt?

A 1 inch

B $1\frac{1}{4}$ inches

C $1\frac{1}{2}$ inches

R4 Victor has \$462.00.

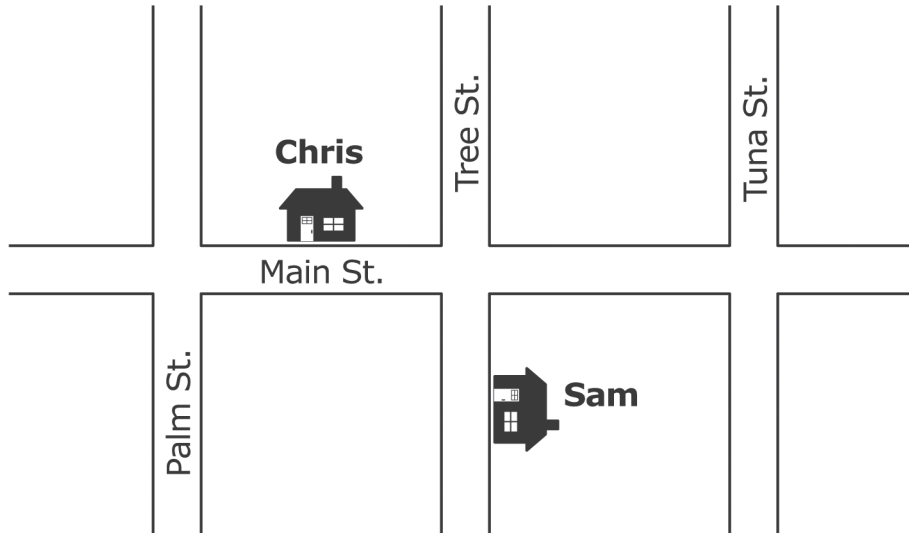
About how much money does he have, to the **nearest** hundred dollars?

A \$60.00

B \$400.00

C \$500.00

Use the map below to answer question **R5**.



- R5** Which set of directions will get you from Sam's house to Chris's house?
- A** Turn right onto Tree Street to Main Street. Take a left. Chris's house is on the right.
 - B** Turn right onto Tuna Street to Main Street. Take a left, and go to Palm Street. Take a right. Chris's house is on the left.
 - C** Turn right onto Tuna Street to Main Street. Take a right. Go to Tree Street and take a right. Chris's house is on the left.

R6 Eric wants to know whether students prefer pizza or hamburgers.

Who should he ask to find out this information?

A students

B teachers

C parents

R7 What is 1,205 rounded to the **nearest** hundred?

A 200

B 1,000

C 1,200

R8 A store advertised a 25% savings on all big screen TVs.

Which fraction is **equal** to 25%?

A $\frac{1}{4}$

B $\frac{2}{5}$

C $\frac{3}{4}$

R9 What is $\frac{3}{4} - \frac{2}{4}$?

A $\frac{1}{0}$

B $\frac{1}{4}$

C $\frac{5}{4}$

R10 Olivia needs to stack cans on a shelf in order from smallest to largest.

Which of these is listed from **smallest** to **largest**?

- A** 8 ounces, 10.5 ounces, 12 ounces
 - B** 10.5 ounces, 12 ounces, 8 ounces
 - C** 8 ounces, 12 ounces, 10.5 ounces
-

R11 Grace has 27 pens.

Sally has 13 pens.

Bruce has 18 pens.

How many pens do Grace and Sally have **altogether**?

- A** 31
- B** 40
- C** 45

R12 The original price of the raincoat was \$79.00.

Kelly used a coupon for \$10.00 off the original price of the coat.

Which equation describes this?

A - \$10.00 = \$79.00

B \$79.00 - \$10.00 =

C - \$79.00 = \$10.00



Do Not Continue.

Below is a list of the Extended Benchmarks (EB) for each released item found in this booklet. The chart contains the EB code, a brief description of what is measured, and the correct answer for each released item.

Full descriptions of the EB contained in the chart below are available for review and download at www.mi.gov/mi-access.

Mathematics			
Released Items Number	EB Code	Strand or Abbreviated Extended Benchmark Descriptor	Answer Key
		Patterns and Relationships	
R1	F.11.FI.EB02	Create, describe, and extend simple number plans	A
		Geometry and Measurement	
R2	G.11.FI.EB10	Tell time on a clock to the nearest 5 minutes	B
R3	G.11.FI.EB01	Use standard tools for measurement	B
R4	G.11.FI.EB18	Round money	C
R5	G.11.FI.EB20	Use maps and grids with legends	A
		Data Analysis and Statistics	
R6	D.11.FI.EB07	Identify data needed to solve a problem	A
		Number Sense and Numeration	
R7	N.11.FI.EB05	Round whole number to the nearest one, ten, hundred or thousand	C
R8	N.11.FI.EB11	Convert percentages	A
R9	N.11.FI.EB15	Add and subtract two fractions	B
R10	N.11.FI.EB16	Compare and order decimal fractions	A
R11	N.11.FI.EB20	Select numbers to solve problems	B
		Numerical and Algebraic Operations	
R12	A.11.FI.EB03	Represent information using algebra	B



Michigan Department of Education
Office of Educational Assessment and Accountability
608 West Allegan Street
P.O. Box 30008
Lansing, MI 48909
877-560-8378
www.mi.gov/mi-access