

Session 6—WorkKeys Graphic Literacy Handout

The following material is publicly available on the ACT web site at:

<https://www.act.org/content/act/en/products-and-services/workkeys-for-job-seekers/assessments/graphic-literacy.html>

The Graphic Literacy Assessment

Workplace graphics come in a variety of formats, but all communicate a level of information. From charts to graphs, diagrams to floor plans, identifying what information is being presented and understanding how to use it are critical to success. The Graphic Literacy assessment measures skills that individuals use when they read and comprehend graphical materials to solve work-related problems.

Number of Items: 38

Test Length

- 55 minutes (WorkKeys Internet Version and Paper)

What it Measures

There are five levels of difficulty. Level 3 is the least complex, and Level 7 is the most complex. The levels build on each other, each incorporating the skills assessed at the preceding levels.

For example, Level 5 includes skills used at Levels 3, 4, and 5. At Level 3, examinees are required to identify information in simple graphics and fill in information that is missing in forms. At Level 6, examinees may use the information found in a complicated graphic to make a decision or interpret a trend. The complexity of the graphics increase as the levels increase, and the skills required to answer the higher level items also becomes more complex.

Level 3

Characteristics of Items

- Elementary workplace graphics such as simple order forms, bar graphs, tables, flowcharts, maps, instrument gauges, or floor plans
- One graphic used at a time

Skills

- Locate and find information
- Identify the next step in a process

Level 3 Graphic Literacy Sample Question

A construction manager reviews the Request for Information (RFI) Log.

Request for Information (RFI) Log

RFI #	Request date	Title	Status	Response date
RFI-0393	02/06	Mechanical Room Duct Sleeve	Canceled	
RFI-0392	02/05	Bathroom Ceilings	In Review	02/06
RFI-0391	02/04	AHU Alarm Monitoring Clarification	New Item	
RFI-0890	02/03	Union Station Ceiling Conflict	Closed	02/03
RFI-0389	02/02	AHU Smoke Damper Control	Canceled	
RFI-0388	02/02	URGENT: Terminal Unit Accessories	Canceled	
RFI-0387	01/30	Base in Vestibule	Closed	01/30
RFI-0386	01/29	Hardware for Existing Door	Pending	01/30
RFI-0385	01/28	Door	Pending	01/29
RFI-0384	01/28	Union Station Hood Fire Protection	Closed	01/29

On which date was RFI-0386 requested?

Individual Question

- A. 01/28
- B. 01/29
- C. 01/30
- D. 02/02

Level 4

Characteristics of Items

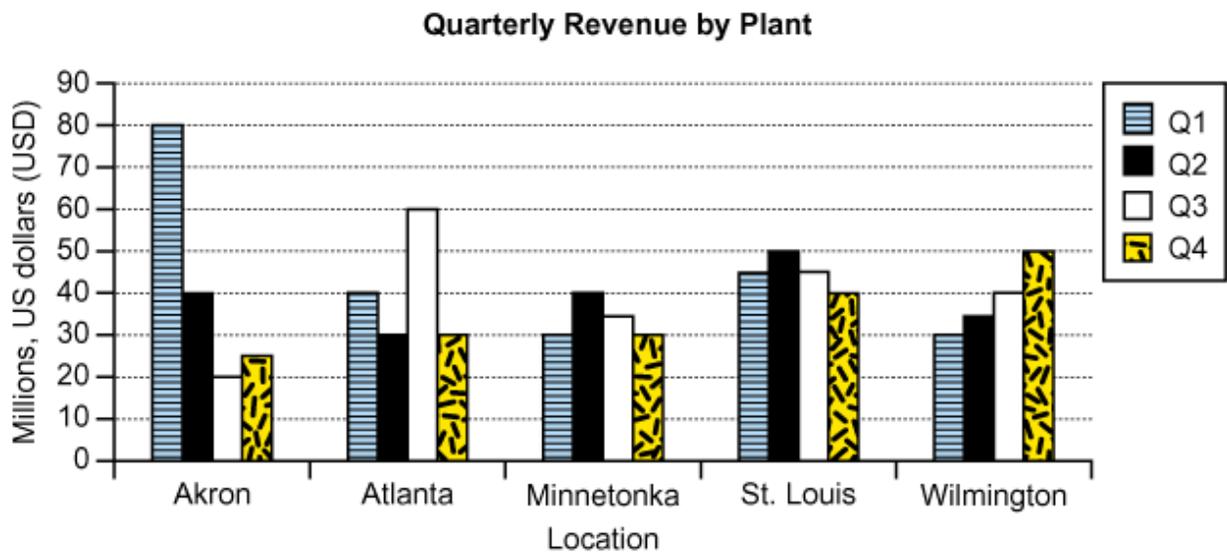
- Straightforward workplace graphics, such as order forms, bar charts, pie charts, diagrams, flow charts, maps, and dashboards
- May include multiple levels of data within a graph
- One or more graphics are used at a time

Skills

- Locate information in a graphic using information found in a second graphic
- Compare two or more pieces of information
- Identify a trend/pattern/relationship
- Make an inference or decision
- Identify the graphic that accurately represents the data

Level 4 Graphic Literacy Sample Question

A financial analyst reviews one year's quarterly revenue numbers to plan for future business expansions.



The company would like to reallocate funds for plant improvement by selecting the location that had the most quarters under 40 million dollars in revenue. Which location should receive the improvement funds?

Individual Question

- A. Akron
- B. Atlanta
- C. Minnetonka
- D. St. Louis

Level 5

Characteristics of Items

- More complicated workplace graphics – may include unusual graphic types
- Multiple variables
- Densely displayed information within a graphic
- One or more graphics are used at a time

Skills

- Locate information in a graphic using information found in another graphic
- Identify and interpret a trend/pattern/relationship
- Make and justify an inference or decision
- Identify the graphic that accurately represents the data
- Compare two or more trends/patterns/relationships
- Identify the most effective graphic given a defined purpose

Level 5 Graphic Literacy Sample Question

A drill press operator who works with wood, plastic, aluminum, and steel uses drill speed recommendation tables to complete orders.

Drill Speeds (Recommended RPM)—Standard twist bit*				
Hole diameter	Wood	Plastic	Aluminum	Steel
1/16 to 3/16 inch	3000	2500	3000	3000
1/4 to 3/8 inch	3000	2000	2500	1000
7/16 to 5/8 inch	1500	1500	1500	600
11/16 to 1 inch	750	N/R	1000	350
Drill Speeds (Recommended RPM)—Forstner bit*				
Hole diameter	Softwood	Hardwood	Aluminum	Plastic
1/4 to 3/8 inch	2400	700	N/R	N/R
1/2 to 5/8 inch	2400	500	N/R	250
3/4 to 1 inch	1500	500	N/R	250
1 1/8 to 1 1/4 inch	1000	250	N/R	250
1 3/8 to 2 inches	500	250	N/R	N/R

N/R = Not Recommended

* = Do Not Exceed Recommended RPM

Pulley #	Drill Speed (RPM)
1	250
2	400
3	700
4	1200
5	1800
6	2400
7	3000
8	3700

Level 6

Characteristics of Items

- Very complicated and detailed graphs, charts, tables, forms, maps, and diagrams
- Graphics contain large amounts of information
- May include three axes and different scales within same graphic
- May include multiple graphics

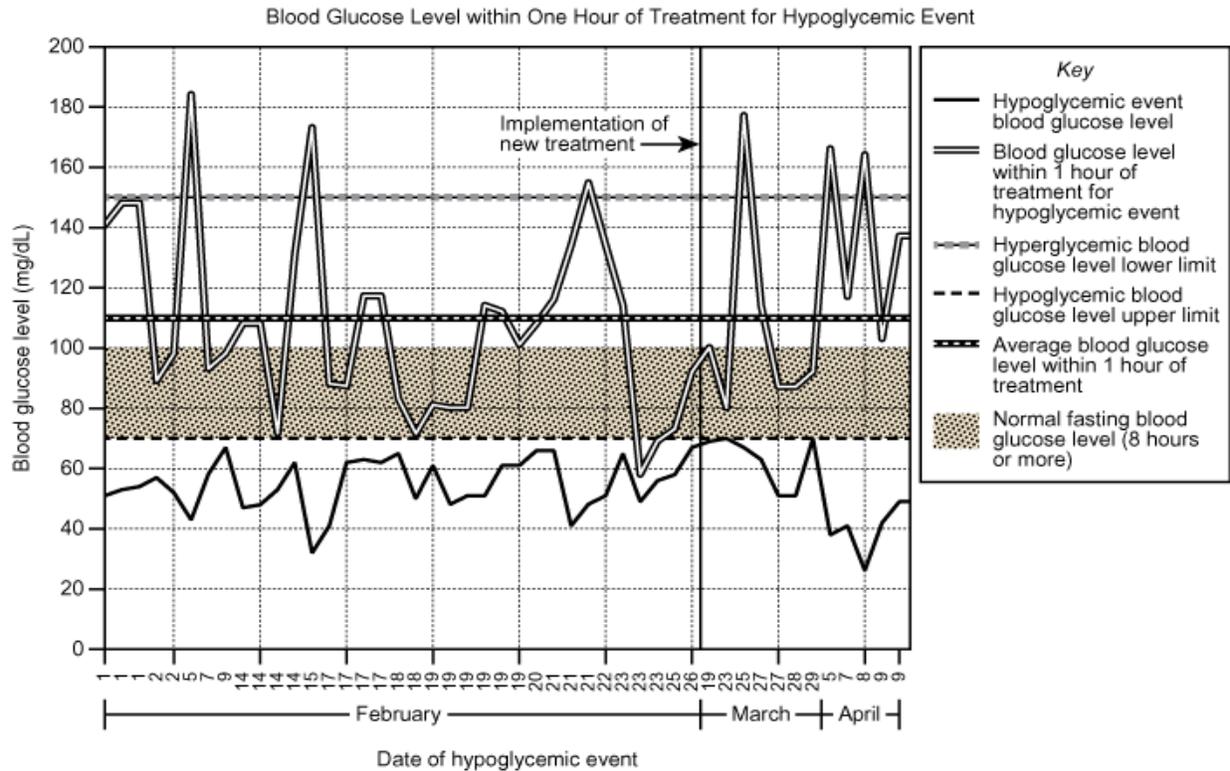
Skills

- Locate information in a graphic using information found in another graphic
- Interpret trends/patterns/relationships
- Make a reasonable inference or decision based on one graphic after finding information in another graphic
- Justify a decision using evidence found in a graphic

- Identify the graphic that accurately represents the data
- Justify an inference or decision based on information
- Identify and justify the most effective graphic given a defined purpose

Level 6 Graphic Literacy Sample Question

A nurse manager uses data to study the results of a new treatment.



Level 7

Characteristics of Items

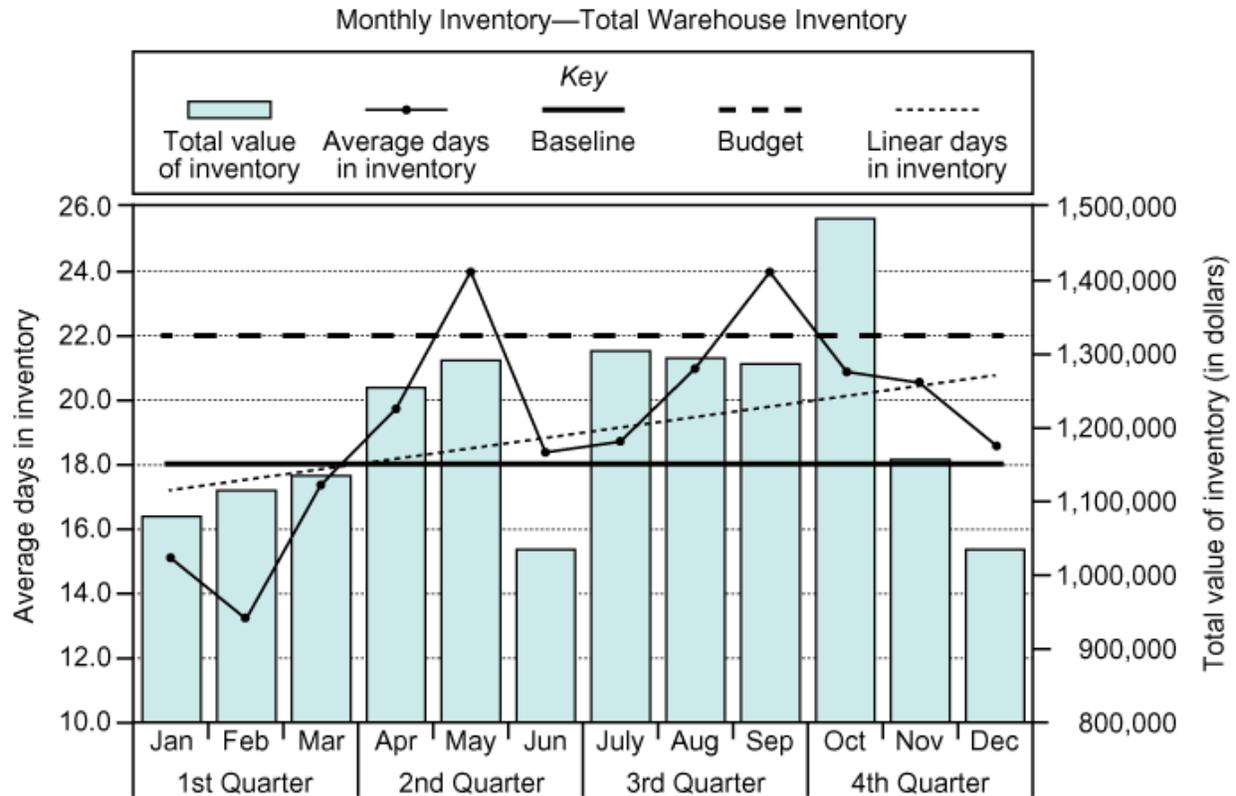
- Level 7 items use extremely complex, dense graphics (often multiple graphics) and require examinees to demonstrate the following skills

Skills

- Interpret trends/patterns/relationships
- Make a reasonable inference or decision based on one graphic after finding information in another graphic
- Justify a decision using evidence found in a graphic
- Identify the graphic that accurately represents the data
- Justify an inference or decision based on information
- Identify and justify the most effective graphic given a defined purpose

Level 6 Graphic Literacy Sample Question

A manager tracks the total value of warehouse inventory and the average number of days an item spends in inventory before being sold each month.



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