

Applied Math: 34 questions/55 minutes

Level 3 Applied Math

In your job as a cashier, a customer gives you a \$20 bill to pay for a can of coffee that costs \$3.84.

1. How much change should you give back?

- A. \$15.26
- B. \$16.16
- C. \$16.26
- D. \$16.84
- E. \$17.16

Level 4 Applied Math

Over the last 5 days, you made the following numbers of sales calls: 8, 7, 9, 5, and 7.

2. On the average, how many calls did you make each day?

- A. 5.8
- B. 7.0
- C. 7.2
- D. 9.0
- E. 36.0

Level 5 Applied Math

You work in a furniture repair shop and are taking apart an old table to refinish it. You are trying to remove a bolt with a wrench. You tried a wrench size of $\frac{1}{2}$ inch but found that it was slightly too big. Your wrenches are sized in $\frac{1}{6}$ -inch increments.

3. What size wrench should you try next?

- A. $\frac{1}{32}$
- B. $\frac{3}{8}$
- C. $\frac{7}{16}$
- D. $\frac{9}{16}$
- E. $\frac{5}{8}$

Level 6 Applied Math

A chemist has a certain number of containers of liquid. Each container is labeled with the number of fluid ounces it contains. The chemist is assigning a lab assistant the task of labeling each container with the number of cups of liquid it contains.

4. Which of the following formulas should the chemist give to the lab assistant to use for the task?

- A. $\text{cups} = 0.125 \times (\text{fluid ounces})$
- B. $\text{cups} = 8 \div (\text{fluid ounces})$
- C. $\text{cups} = 8 \times (\text{fluid ounces})$
- D. $\text{cups} = 8 + (\text{fluid ounces})$
- E. $\text{cups} = (\text{fluid ounces}) - 8$

Level 7 Applied Math

The farm where you just started working has a vertical cylindrical oil tank that is 2.5 feet across on the inside. The depth of the oil in the tank is 2 feet.

5. If 1 cubic foot of space holds 7.48 gallons, about how many gallons of oil are left in the tank?

- A. 37
- B. 59
- C. 73
- D. 230
- E. 294

Graphic Literacy: 38 questions/55 minutes

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

Level 3 Graphic Literacy

Request for Information (RFI) Log

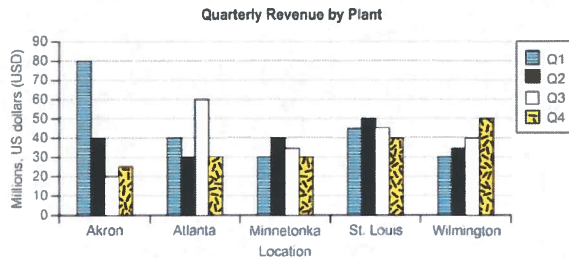
RFI #	Request date	Title	Status	Response date
RFI-0393	02/06	Mechanical Room Duct Sleeve	Canceled	
RFI-0392	02/05	Bathroom Ceilings	In Review	02/06
RFI-0391	02/04	AHU Alarm Monitoring Clarification	New Item	
RFI-0890	02/03	Union Station Ceiling Conflict	Closed	02/03
RFI-0389	02/02	AHU Smoke Damper Control	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

1. On which date was RFI-0386 requested?

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

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

Level 4 Graphic Literacy



2. 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?

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

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

Level 5 Graphic Literacy

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

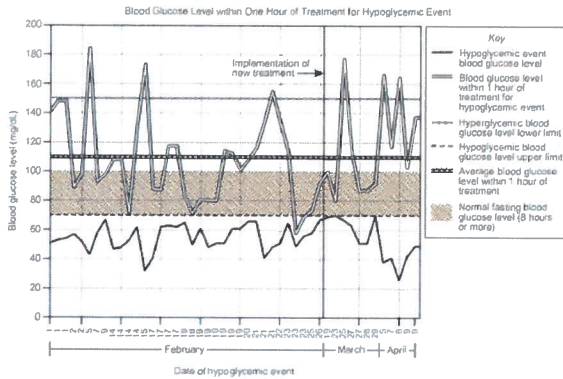
Pulley #	Drill Speed (RPM)
1	250
2	400
3	700
4	1200
5	1800
6	2400
7	3000
8	3700

3. An order requests four holes to be drilled into a piece of aluminum. Each hole is 5/8-inch in diameter. Which pulley would provide maximum speed without exceeding the recommended RPM for this job?

- A. Pulley #1
- B. Pulley #4
- C. Pulley #5
- D. Pulley #6

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

Level 6 Graphic Literacy

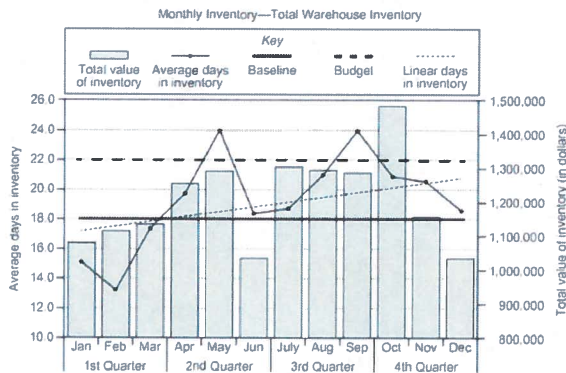


4. What was the approximate highest blood glucose level, in mg/dL, within 1 hour of treatment for a hypoglycemic event on February 19?

- A. 61
- B. 82
- C. 115
- D. 182

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.

Level 7 Graphic Literacy



5. Which month reflects an increase in total value of inventory from the prior month with the largest drop in average days in inventory?

- A. December
- B. February
- C. June
- D. October

Level 3 Workplace Documents

ATTENTION CASHIERS:

All store employees will now get 20% off the price of clothes they buy here. Please follow the new directions listed below.

Selling clothes to employees

- Ask to see the employee's store identification card.
- Enter the employee's department code number into the cash register.
- Use the cash register to take 20% off the price. Then push the sales tax button.
- Write your initials on the sales receipt.
- Sell clothes to employees during store hours only.

Level 4 Workplace Documents

INSTRUCTIONS TO SORTING DEPARTMENT:

SPECIAL PROJECT TO FIX ORDER #888

Five long, blue plastic bins have been placed over by the overhead door. Piled on the other side of this room, near the time clock, are several thousand steel rods of varying lengths. All of those rods must be sorted by length and placed in the bins.

Bin "1" is for rods that are four to five meters long.

Bin "2" is for rods that have a length of over five meters, up to six meters.

1. You are a cashier. According to the notice shown, what should you write on a store employee's receipt?

- A. The employee's identification number
- B. The employee's department number
- C. The amount of sales tax
- D. The 20% discount price
- E. Your initials

2. According to the instructions shown, what is a condition for project success other than delivery on time?

- A. All rods must be sorted by both length and diameter.
- B. Rods eleven meters long must be leaned against the overhead door.
- C. The customer does not want rods that are warped.
- D. The five-meter-long rods must go in Bin 2.
- E. The ten-meter-long rods must arrive at the customer in Bin 4.

Bin "3" is for rods that have a length of over six meters, up to eight meters.

Bin "4" is for rods that have a length of over eight meters, up to ten meters.

Bin "5" is for warped or unsmoothed rods. These will not be accepted.

If these rods are not all sorted correctly, the customer will reject the order. We cannot afford to let that happen again. Work as quickly as you can because Friday is the deadline for delivery of the order.

Level 5 Workplace Documents

Goldberg's Auto Parts is served by more than fifty different accounts, each with its own sales representative, company name, corporate address, and shipping address. As a shipping and receiving clerk at Goldberg's, you are required to return defective merchandise to the manufacturer.

Standard procedure for returning an item begins with your written request to the company for authorization. Always send the request to the corporate address, not to the shipping address. Unless the company file folder contains a form for this procedure, write a business letter to the manufacturer supplying the item's stock number, cost, and invoice number; the date it was received; and the reason for its return. The manufacturer's reply will include an authorization number from the sales representative, a sticker for you to place on the outside of the box to identify it as an authorized return, and a closing date for the company's acceptance of the returned item. If you do not attach the provided sticker, your returned box will be refused by the manufacturer as unauthorized, and you will need to obtain a new letter, authorization, sticker, and closing date. Always send a returned box to the shipping address, not to the company's corporate address.

3. According to the policy shown, what should you do if you lose an authorization sticker?

- A. Send a request for a return authorization along with the rejected part directly to the manufacturer's shipping address.
- B. Send a request for return authorization along with the rejected part directly to the manufacturer's corporate address.
- C. Repeat the standard procedure to obtain a new letter, authorization, sticker, and closing date.
- D. Use a sticker from another company's folder.
- E. Send the rejected part to your sales representative.

Level 6 Workplace Documents

From: J. Kimura, Senior Vice President of Molten Metals, Inc.

To: All e-mail users at Molten Metals, Inc.

To permit our employees to communicate directly with one another as well as with vendors and customers, Molten Metals, Inc. provides a network of e-mail accounts. Access to e-mail is at the sole discretion of Molten Metals, Inc., and we will determine who is to be so empowered. Under President Duarte's leadership, all messages sent and received (even those intended as personal) are treated as business messages. Molten Metals, Inc. has the capability to and reserves the right to access, review, copy, and delete any messages sent, received, or stored on the company e-mail server. Molten Metals, Inc. will disclose these messages to any party (inside or outside the company) it deems appropriate. Employees should treat this server as a constantly reviewed, shared file stored in the system. Due to the reduced human effort required to redistribute electronic information, a greater degree of caution must be exercised by employees transmitting MM, Inc. confidential information using company e-mail accounts. Confidential information belonging to MM, Inc. is important to our independence and should never be transmitted or forwarded to persons or companies not authorized to receive that

4. **Based on the memo shown, personal messages transmitted or received using Molten Metals, Inc. e-mail accounts will be:**

- A. automatically deleted upon detection.
- B. avoided by server staff to save company time.
- C. forwarded to private, personal accounts.
- D. grounds for personnel action.
- E. treated no differently from other messages.

information. Likewise, it should not be sent or forwarded to other employees inside the company who do not need to know that information. MM, Inc. strongly discourages the storage of large numbers of e-mail messages for a number of reasons. First, because e-mail messages frequently contain company confidential information, it is good to limit the number of such messages to protect the company's information. Second, retention of messages fills up large amounts of storage space on the e-mail server and personal hard disks, and can slow down the performance of both the network and individual personal computers. Finally, in the event that the company needs to search the network server, backup tapes, or individual hard disks for genuinely important documents, the fewer documents it has to search through, the more economical the search will be. Therefore, employees are to delete as soon as possible any e-mail messages they send or receive.

Level 7 Workplace Documents

Confidentiality

Client and Consultant agree to maintain the confidentiality of each other's trade secrets and any confidential business information disclosed during the term of this agreement, except as authorized by the party that disclosed the information. When the consulting services have been completed, the parties will return all confidential materials and equipment provided during the term of this agreement, unless keeping the materials is authorized by the party that provided them. Each party is responsible for identifying all trade secrets, confidential business information, and confidential materials. Nothing in this or in any other agreement will prevent any party from using or disclosing confidential information to the extent necessary to carry out the responsibilities in this agreement; or will restrict any party's use or disclosure

5. **You have hired a consultant to work with your firm. Based on the agreement shown, what will happen if the consultant's business is taken over by a major competitor?**
- A. The agreement will confidentially go into arbitration.
 - B. The agreement will not be enforceable and is void.
 - C. The consultant is bound by the agreement.
 - D. The obligations will pass to the new owner.
 - E. You must renegotiate the agreement with the new owner.

of information that is or becomes publicly known through lawful means, that was rightfully in that party's possession or part of that party's general knowledge prior to the term of this agreement, or that is disclosed to that party without confidential or proprietary restrictions by a person who rightfully possesses the information; or will prevent any party from responding to a lawful subpoena or court order. Client agrees that Consultant will neither use nor disclose the trade secrets, confidential information, or confidential materials of third parties, and Client will neither ask nor require Consultant to do so.

Miscellaneous Provisions

All agreements and understandings between the parties concerning the subject matter of this agreement are embodied in this agreement and any proposal to which the parties agreed. It is understood and agreed by both parties that there are no oral or other agreements or understanding between the parties affecting this agreement. This agreement shall supersede all prior and contemporaneous agreements and understandings between the parties, with respect to any subject covered by this agreement, except as otherwise provided in this agreement. This agreement may not be amended except in writing by an instrument, signed by each of the parties. No failure or delay in exercising any right under this agreement shall operate as a waiver thereof. Neither party shall assign or otherwise transfer any rights or obligations under this agreement without the written consent of the other party. Subject to the foregoing agreement, this agreement shall be binding upon and shall inure to the benefit of the parties' respective heirs, successors, attorneys, and permitted assignees. If any provision of this agreement, or its application to any person, place, or circumstance, is held by an arbitrator or a court of competent jurisdiction to be invalid, unenforceable, or void, such provision shall be enforced to the greatest extent permitted by law, and the

remainder of this agreement and such provision as applied to the other persons, places, and circumstances shall remain in full force and effect. This agreement shall not become binding on either party until both parties execute it.

Applied Math Correct Answers: 1. B 2. C 3. C 4. A 5.C

Graphic Literacy Correct Answers: 1. B 2. C 3. B 4. C 5. D

Workplace Documents Correct Answers: 1. E 2. C 3. C 4. E 5. C