## Level D - Form 1 - Applied Mathematics: Computation in Context

Sample Question
How much change will you get if you spend \$2.49 and pay with a \$5.00 bill?
A \$1.51
B \$1.61
C \$2.51
D \$2.61

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The sign shows the rates charged by the Rub-a-Dub Laundry. Study the sign. Then do Numbers 1 through 5.

RUB-A-DUB LAUNDRY Quality, Excellence, and Service					
Correcto	KA Week and Day	IES	Day Clean		
Garments	wash and Dry	iron	Dry Clean		
1-9	\$0.10 each	Add \$0.50 each	\$2.00 each		
10-24	\$0.10 each	Add \$0.40 each	\$1.75 each		
25-49	\$0.10 each	Add \$0.30 each	\$1.50 each		
50-99	\$0.05 each	Add \$0.20 each	\$1.25 each		
100 or	\$0.05 each	Add \$0.10 each	\$1.00 each		
more					
\$1.00 per repair for mending \$2.00 charge for all lost claim tickets Garments will not be held for more than 1 month.					

- 1. Kendra brought 14 shirts to be washed and dried. How much will she be charged?
  - **A** \$0.10
  - **B** \$1.40
  - **C** \$14.00
  - D \$11.40
- 2. If Kendra has her 14 shirts ironed as well as washed and dried, how much more will she pay?
  - F \$4.00
  - **G** \$5.60
  - H \$4.20
  - **J** \$7.00

- **3.** Esther had four dresses dry-cleaned and four shirts washed, dried, and ironed. How much will she be charged before tax?
  - A \$8.00
  - **B** \$10.00
  - **C** \$10.40
  - D \$8.40
- 4. Fred has six pairs of pants to be dry-cleaned. His daughter has seven dresses to be drycleaned. How much will they save if they bring everything in together?
  - F \$26.00
    G \$3.25
    H \$4.35
    J \$22.75

- 5. Hiram's cleaning bill came to \$14.25. He paid with a \$20.00 bill. How much change should he receive?
  - A \$5.75
  - **B** \$4.75
  - **C** \$6.75
  - D \$5.85

The diagrams show a cardboard pyramid Ms. Garza's class is building. Each of the four faces is the same size. One face has a small door. Study the diagrams. Then do Numbers 6 through 8.



6. Students are gluing yarn around the edges of their pyramids, including the base but **not** around or under the door. How much yarn is needed to decorate a single pyramid?

$$F 7\frac{1}{4} ft$$

$$G 7\frac{3}{4} ft$$

$$H 8\frac{1}{4} ft$$

$$J 8\frac{3}{4} ft$$

- 7. There are 24 students in the class. If one-fourth of the students were absent that day, how many students worked on the model?
  - A 4
    B 6
    C 18
    D 20
- 8. Ms. Garza figures that the project will cost \$32 and that one-eighth of that amount will be spent on cardboard. How much does the cardboard cost?
  - F \$4.00
  - **G** \$6.00
  - H \$5.00
  - **J** \$7.00

The graph shows the number of movies a store rented out in March. Study the graph. Then do Numbers 9 through 11.

## **March Movie Rentals**



- **9.** About how many dramas did the store rent per week?
  - **A** 100
  - **B** 500
  - **C** 600
  - D 800
- 10. The store rented exactly half as many comedies in April as it did in March. How many comedies did it rent in April?
  - F 6,228
  - **G** 3,980
  - H 1,557
  - **J** 1,552
- **11.** How many action and horror movies did the store rent in March?
  - A 10,544
  - **B** 16,083
  - C 11,237
  - D 13,495

The diagram shows a plan for the deck Herman is building in his backyard. Study the diagram. Then do Numbers 12 through 18.



12. How much of the backyard will **not** be taken up by the deck?

$$F \frac{1}{35}$$

$$G \frac{2}{35}$$

$$H \frac{2}{7}$$

$$J \frac{5}{7}$$

- 13. Herman is building the floor of the deck with planks that are 6 inches wide, 2 inches thick, and 5 feet long. How many planks will he need to finish the floor of the deck?
  - **A** 10
  - **B** 12
  - **C** 20
  - D 40

- 14. The railing of the deck will be made of three beams plus supports. How many 6-foot beams will Herman need to construct the railing?
  - **F** 5
  - **G** 13
  - H 18
  - J 6
- **15.** One quart of deck finish covers 10 square feet. What fraction of the deck does one quart cover?

$$A \frac{1}{100}$$
$$B \frac{1}{10}$$
$$C \frac{9}{10}$$
$$D \frac{6}{10}$$

- 16. During one trip to the lumberyard, Herman spent \$775 on lumber and \$25 on nails, screws, and small tools, plus 5% sales tax. How much was the sales tax for his purchase?
  - **F** \$4.00
  - **G** \$25.00
  - H \$40.00
  - **J** \$38.75

17. Herman figures that it would have cost\$2,500 to have a professional build the deck, but he spent only \$1,500 on materials. What fraction of the professional fee did he save?



**18.** Herman figures that during this project he spent his time in the following ways:

35% reading about how to build the deck10% digging post holes20% building the frame10% building the floor7% building the stairs5% applying the deck finish

What fraction of his time did he spend digging the post holes and building the frame?

$$F \frac{1}{15}$$

$$G \frac{1}{10}$$

$$H \frac{1}{5}$$

$$J \frac{3}{10}$$

The Greens just bought a new refrigerator. They set aside \$750 to buy it. After shopping for a while, they finally decided on one. It was originally priced at \$800, but they bought it on sale for \$700. Use this information to do Numbers 19 through 20.

- **19.** What percentage was the refrigerator marked down?
  - A 7.8%
  - **B** 12.5%
  - C 80%
  - D 87.5%

- **20.** About what percent of the amount set aside did the Greens spend?
  - F 7%
  - **G** 87.5%
  - H 93%
  - **J** 12.5%