ONLINE ANSWER KEY

Student Edition

PAGES 2-3: NUMBERS IN THE NEWS

Expressive Cats
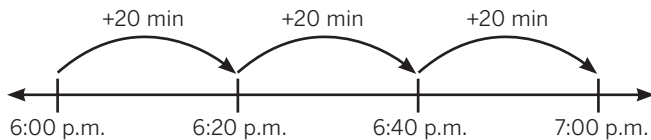Please accept all fractions equivalent to $\frac{20}{40}$.

Critter Crossing
40 total crossings
24 + 12 = 36 × 40

A New Scoob!
7:00 p.m.

+20 min   +20 min   +20 min

6:00 p.m.   6:20 p.m.   6:40 p.m.   7:00 p.m.

PAGES 4-5: FAR-OUT FLAVORS

1. Answers will vary. Please accept all accurate combinations. Possible combination: 4 $1 bills and 3 quarters.
2. 3 $1 bills and 2 quarters
3. $5 + $0.50 + $0.50 + $0.10 = $6.10
   No, you do not have enough money.
4. $3.00 + $2.50 + $0.20 + $0.06 = $5.76
   Yes, you have enough money for 2 scoops and you will have 1 cent, or a penny, left over.
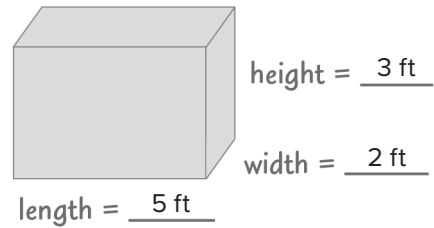
PAGES 6-9: BROTHERS GO THE DISTANCE

1. C, meter
2. 2 km
3. 2.5 km = 2,500 m
4A. 180 km − 40 km = 140 km farther
4B. 140 km = 140,000 m
5. 200 m = 0.2 km
6A. 341.21 seconds
6B. 341.21 seconds < 341.26 seconds or 341.26 > 341.21 seconds
7. 47 minutes

Time	Hours and Minutes
1:15 p.m.	
2:00 p.m.	45 min
2:02 p.m.	2 min
Total	**47 min**

8. 3.83 + 0.35 + 28.95 + 1.52 + 10.8 = 45.45 minutes total

PAGES 10-11: SAVING SEAHORSES

1.

height = 3 ft
width = 2 ft
length = 5 ft

V = 5 ft × 2 ft × 3 ft = 30 cubic feet

2.

height = 1.5 ft
width = 3 ft
length = 3 ft
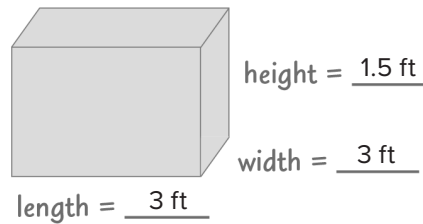
V = 3 ft × 3 ft × 1.5 ft = 13.5 cubic feet

3.

12 inches
6 inches
length = 12 in.
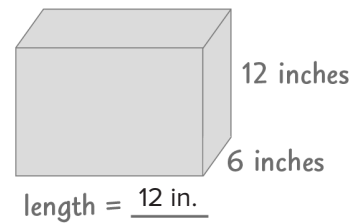
864 in.³ = l × 6 in. × 12 in.
864 in.³ = l × 72 in.²
864 in.³ ÷ 72 in.² = l
l = 12 inches

4.

8 ft
6 ft   3 ft
12 ft   4 ft   2 ft
11.2 ft   3 ft   5 ft
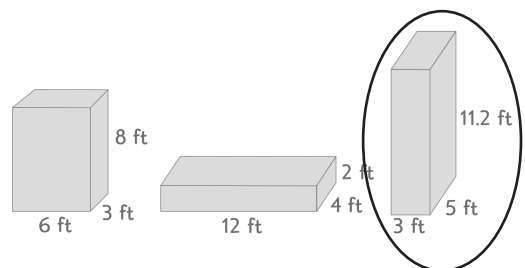
6 ft × 3 ft × 8 ft = 144 cubic feet
12 ft × 4 ft × 2 ft = 96 cubic feet
3 ft × 5 ft × 11.2 ft = 168 cubic feet
Explanations will vary. Please accept all reasonable explanations.

ONLINE ANSWER KEY

PAGES 12-13: MAC 'N' CHEESE, PLEASE

1. What's Your Top Cheese?
2. Cheddar
3. True
4. D, 83 years
5. D, $320 million
6. 16 oz × 2 = 32 oz
7. $\frac{1}{2} > \frac{1}{4}$ or $\frac{1}{4} < \frac{1}{2}$

PAGES 14-15: THE CASE OF THE FISHY BASEBALL CARD

Math Warm-Up:

1. 1952 − 1947 = 5
2. 1924 + 50 = 1974
3. 2020 − 1985 = 35
4. 1994 + 17 = 2011

How did Caleb crack the case?

Answers will vary. Please accept all reasonable answers. Possible answer: 1887 (rule established) + 60 (years later Jackie Robinson broke the rule) = 1947 (Jackie Robinson's rookie year); 1919 (Jackie Robinson born) + 28 (Jackie Robinson's age on card) = 1947 (year the card should have been printed)

Teacher's Guide

PROBLEM OF THE DAY

1. 2.65; 4.95
   2.65 + 4.95 = 7.6
2. Estimates will vary. Please accept all reasonable estimates. Actual angle measurement: 60°
3. (3 + 2) × (16 − 10) = 30
4. 1 L = 1,000 mL
   1,000 mL ÷ 2 = 500 mL
5. perimeter: $p = l + l + w + w$ or $p = 2l + 2w$
   area: $a = l \times w$
   volume: $V = l \times w \times h$
6. Comets; explanations will vary. Please accept all reasonable explanations. Possible explanation: The least number of x's are marked over the Comets to show the least number of wins.
7. 1,357
   1 × 3 × 5 × 7 = 105

8. Answers may vary. Possible answer: 2 quarters and 5 pennies
9. Word problems will vary. Please accept all reasonable word problems.
10. 8 pink tulips
    4 × 12 = 48 total tulips
    48 ÷ 2 = 24 red tulips
    48 ÷ 3 = 16 white tulips
    48 − 24 − 16 = 8 pink tulips
11. D, rectangle
12. 7:18
13. 4; 2; 5
14. False; explanations will vary. Please accept all reasonable explanations. Possible explanation: Volume is length multiplied by width multiplied by height. If the product of a cube's length, width, and height is greater than that of a rectangular prism, the volume of the cube will be greater.
15. 3 bags
    35 oz ÷ 15 oz/bag = 2.3 ≈ 3
16. 2020 − 1866 = 154 years
17. 1,4 7 5,8 3 2
18. C, 50 nickels and 3 quarters
19. ? = 15
    65 − 26 − 24 = 15
20. Pat ate more; explanations will vary. Please accept all reasonable explanations. Possible explanation: Pat ate more because $\frac{2}{3} > \frac{3}{5}$.

For "Far-out Flavors" — Lesson Plan 1

DYNADASH GRADE 3: BILLS AND COINS

Answers will vary for questions 7 through 10. Please accept all reasonable combinations. Possible combinations are listed below.

Count the money in the pictures below to find the total. We did the first one for you.

1.

Total: $1 + 25¢ + 25¢ + 25¢ + 10¢ = $1.85

2.

Total: 25¢ + 10¢ + 10¢ + 5¢ = 50¢ or $0.50

3.

Total: $1 + 25¢ + 25¢ + 1¢ + 1¢ = $1.52

4.

Total: $1 + $1 + 5¢ + 5¢ + 5¢ + 5¢ + 5¢ + 5¢ = $2.30

5.

Total: 25¢ + 25¢ + 25¢ + 25¢ + 10¢ + 10¢ + 10¢ + 1¢ + 1¢ + 1¢ + 1¢ + 1¢ = $1.35

Write the number of bills and coins you could use to pay for each given total. We did the first one for you.

6. Total: $4.25
- $1 bills: 4
- Quarters: 1
- Dimes: _____
- Nickels: _____
- Pennies: _____

7. Total: $1.50
- $1 bills: 1
- Quarters: 2
- Dimes: _____
- Nickels: _____
- Pennies: _____

8. Total: $3.72
- $1 bills: 3
- Quarters: 2
- Dimes: 2
- Nickels: _____
- Pennies: 2

9. Total: $0.89
- $1 bills: _____
- Quarters: 3
- Dimes: 1
- Nickels: _____
- Pennies: 4

10. Total: $4.37
- $1 bills: 4
- Quarters: 1
- Dimes: 1
- Nickels: _____
- Pennies: 2

For "Far-out Flavors" — Lesson Plan 1

LEVEL UP: MAKING CHANGE

1. You order a 2-scoop cone with cookie bits on top and pay with a $10 bill. How much change will you get?

$4.35 + $1.25 = $5.60
$10.00 − $5.60 = $4.40

2A. Margie orders a sundae and Rebecca orders a 1-scoop bowl of ice cream. What is their combined total?

$4.55 + $2.25 = $6.80

2B. Margie and Rebecca have $9.00 to spend together. What is the most expensive item they could add to their order without going over $9.00?

Cookie bits

2C. How much change would they receive after purchasing all 3 items?

$6.80 + $1.25 = $8.05
$9.00 − $8.05 = $0.95

3. Stormy pays seven dollars for 2 items and receives one quarter, one dime, and one nickel back in change. Which two items did she purchase?

Ⓐ sundae and cookie bits
Ⓑ 1-scoop bowl and 2-scoop cone
Ⓒ 1-scoop cone and 2-scoop bowl
Ⓓ brownie and 2-scoop bowl

$7.00 − ($0.25 + $0.10 + $0.05) = $6.60

4. Garrett purchases a 2-scoop bowl of ice cream with sprinkles. Which combination of coins represents the change he will receive after paying with a $5 bill?

Ⓐ 20 pennies, 1 nickel, 1 dime
Ⓑ 3 nickels, 1 dime, 4 pennies
Ⓒ 1 quarter, 1 nickel, and 2 pennies
Ⓓ 2 dimes, 1 nickel, and 3 pennies

$5.00 − ($3.75 + $0.97) = $0.28

5. Miranda purchases 1 item with $3.00 and receives back the change below. Which item did she purchase?

Ⓐ 1-scoop bowl   Ⓒ brownie
Ⓑ 1-scoop cone   Ⓓ cookie bits

$3.00 − $0.20 = $2.80

BONUS: You have $8.00. List 2 combinations of at least 3 items that you can order from the menu above. Then calculate the amount of change you would get back from each combined purchase.

Answers will vary. Please accept all reasonable answers and check calculations for accuracy.

For "Far-out Flavors" — Lesson Plan 1

LEVEL DOWN: MONEY MATCH

I

$ **2.88**

P

$ **7.61**

L

$ **7.80**

T

$ **0.74**

For "Far-out Flavors" — Lesson Plan 1

LEVEL DOWN: MONEY MATCH

O

$ __0.63__

U

$ __6.49__

N

$ __5.76__

Y

$ __3.08__

What did the duck say to the cashier?

P	U	T		I	T		O	N		M	Y		B	I	L	L
$7.61	$6.49	$0.74		$2.88	$0.74		$0.63	$5.76			$3.08		$2.88	$7.80	$7.80	

For "Brothers Go the Distance" — Lesson Plan 2

DYNADASH GRADE 4: MATCHING MEASUREMENTS

Column A

1. weight of a car

2. length of time of a TV show
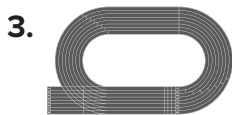
3. length of a running track

4. length of time in a full school day

5. height of a pushpin

6. length of a glue stick

7. height of Mount Everest

8. weight of an apple

Column B

A. 30 minutes

B. 3 inches

C. 400 meters

D. 70 grams

E. 4,000 pounds

F. 29,029 feet

G. 6 millimeters

H. 7 hours

ONLINE ANSWER KEY

For "Brothers Go the Distance" — Lesson Plan 2

LEVEL UP: RACING TIMES

Swimmer	Race Time (in seconds)
Joe K.	50.1
Ali E.	51
Max M.	50.147
Warren P.	50.06

1. Which swimmer won the race?

Warren P.

2. How much faster was the first-place swimmer than the fourth-place swimmer?

51 − 50.06 = 0.94 seconds

Runner	Race Time (in seconds)
Upton O.	47.3
Eileen D.	47.932
Gladys C.	47.24
Wade M.	48.2

3. Which runner finished in last place?

Wade M.

4. Write a comparison statement between the racing times of Upton O. and Gladys C.

47.24 < 47.3 or 47.3 > 47.24

Biker	Race Time (in hours)
Mae B.	5.29
Frank N.	5.5
Sandy B.	5.451
Earl E.	5.58

5. Which biker won the silver medal, which is given to the second-place finisher?

Sandy B.

6. There are 60 minutes in an hour. What is Frank N.'s time in minutes?

5.5 hr × 60 min/hr = 330 minutes

Driver	Race Time (in hours)
Lizzy H.	12.9
Francesco B.	13.24
Holly S.	11.453
Miles A.	12.28

7. Order the drivers from fastest time to slowest time.

Holly S., Miles A., Lizzy H., Francesco B.

8. These results represent 4 of the top 5 race car drivers who competed. Write a time that could have belonged to the fourth-place driver.

Answer will vary. Please accept all times between 12.9 and 13.24 hours.

BONUS: Create your own chart of racing times including decimals up to the thousandths place. Then write 3 math questions about your chart and challenge a partner to solve them.

Answers will vary. Please accept all reasonable charts and questions.

ONLINE ANSWER KEY

For "Brothers Go the Distance" — Lesson Plan 2

LEVEL DOWN: CHOOSE THE APPROPRIATE TOOL

1. Height of a door
- Ⓐ measuring tape
- Ⓑ protractor
- Ⓒ thermometer
- Ⓓ graduated cylinder

2. Width of an apple
- Ⓐ yardstick
- Ⓑ ruler
- Ⓒ scale
- Ⓓ protractor

3. Weight of a dog
- Ⓐ graduated cylinder
- Ⓑ measuring tape
- Ⓒ yardstick
- Ⓓ scale

4. Days until the end of the month
- Ⓐ protractor
- Ⓑ measuring spoon
- Ⓒ calendar
- Ⓓ stopwatch

5. Amount of juice in a cup
- Ⓐ graduated cylinder
- Ⓑ scale
- Ⓒ ruler
- Ⓓ thermometer

6. Temperature outside
- Ⓐ ruler
- Ⓑ thermometer
- Ⓒ meterstick
- Ⓓ scale

7. Time it takes a swimmer to complete a race
- Ⓐ stopwatch
- Ⓑ scale
- Ⓒ graduated cylinder
- Ⓓ calendar

8. Angle of a triangle
- Ⓐ protractor
- Ⓑ yardstick
- Ⓒ measuring cup
- Ⓓ graduated cylinder

9. Amount of sugar in a recipe
- Ⓐ yardstick
- Ⓑ ruler
- Ⓒ scale
- Ⓓ measuring spoon

10. Distance between your house and the school
- Ⓐ ruler
- Ⓑ thermometer
- Ⓒ odometer
- Ⓓ measuring tape

11. How long it is until bedtime
- Ⓐ calendar
- Ⓑ clock
- Ⓒ protractor
- Ⓓ thermometer

12. All of the following measure length, except:
- Ⓐ ruler
- Ⓑ graduated cylinder
- Ⓒ yardstick
- Ⓓ measuring tape

BONUS: Jana thinks a yardstick is the better tool to measure her brother Andy's height. Andy thinks a measuring tape is the better tool. Who chose the better tool? Justify your reasoning.

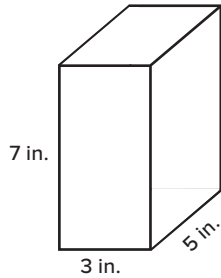**Answers will vary. Please accept all reasonable answers.**

For "Saving Seahorses" — Lesson Plan 3

### DYNADASH GRADE 5: THE VOLUME FORMULA

Use the formula $V = l \times w \times h$ to find the volume of each rectangular prism. We did the first one for you. Remember to include your units!

1. $V = \underline{\text{3 in.}} \times \underline{\text{5 in.}} \times \underline{\text{7 in.}} = \underline{\text{105 cubic inches}}$
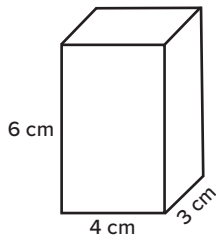
7 in.
3 in.
5 in.

2. $V = \underline{\textbf{4 cm}} \times \underline{\textbf{3 cm}} \times \underline{\textbf{6 cm}} = \underline{\textbf{72 cm}^3}$

6 cm
4 cm
3 cm

3. $V = \underline{\textbf{9 ft}} \times \underline{\textbf{2 ft}} \times \underline{\textbf{8 ft}} = \underline{\textbf{144 ft}^3}$

8 ft
9 ft
2 ft

4. $V = \underline{\textbf{15 m}} \times \underline{\textbf{20 m}} \times \underline{\textbf{6 m}} = \underline{\textbf{1,800 m}^3}$

6 m
15 m
20 m

Use the formula $V = l \times w \times h$ to find the missing length, width, or height of each rectangular prism. We did the first one for you.

5. $h = \underline{6 \text{ ft}}$

Volume = 120 ft³
?
4 ft
5 ft
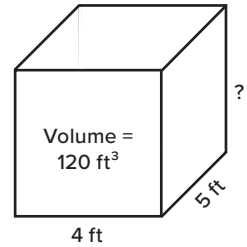
$120 \text{ ft}^3 = 4 \text{ ft} \times 5 \text{ ft} \times h$
$120 \text{ ft}^3 = 4 \text{ ft} \times 5 \text{ ft} \times 6 \text{ ft}$
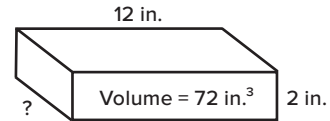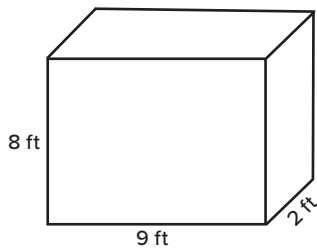
6. $w = \underline{\textbf{3 in.}}$

12 in.
Volume = 72 in.³
?
2 in.

7. $h = \underline{\textbf{4 cm}}$

Volume = 320 cm³
8 cm
10 cm
?

8. $l = \underline{\textbf{15 yd}}$

18 yd
Volume = 3,510 yd³
13 yd
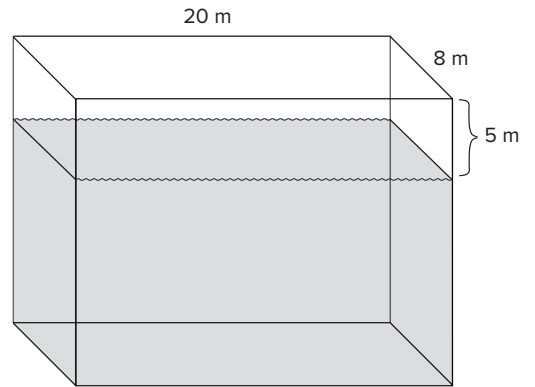?

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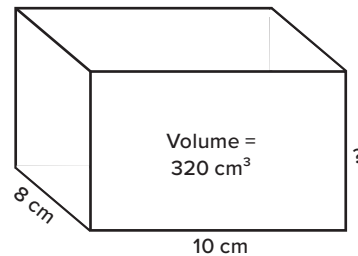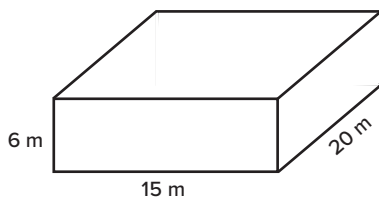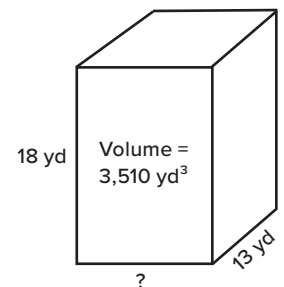
For "Saving Seahorses" — Lesson Plan 3

LEVEL UP: LIQUID VOLUMES
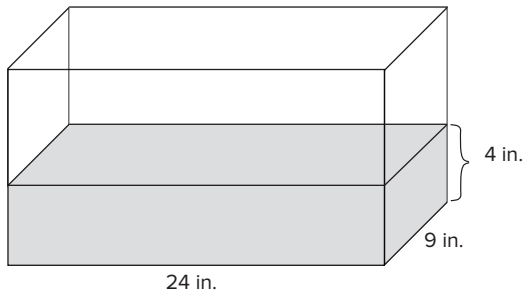
1. The tank above is partially filled with water. What is the volume of the water in the tank?

24 in. × 9 in. × 4 in. = 864 in³

3. The volume of the tank above is 2,400 cubic meters What is the volume of the water in the tank?

2,400 m³ − (20 m × 8 m × 5 m) = 1,600 m³
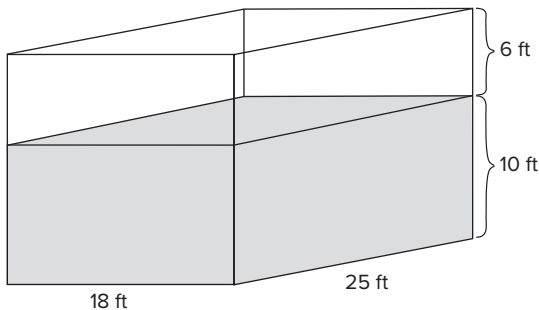
2A. The fish tank above is partially filled with salt water. What is the volume of the salt water in the fish tank?

18 ft × 25 ft × 10 ft = 4,500 ft³

2B. What is the volume of the portion of the tank that is not filled with water?

18 ft × 25 ft × 6 ft = 2,700 ft³
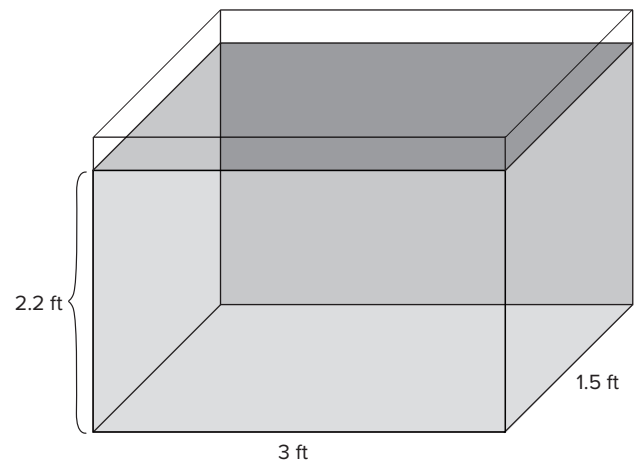
4A. The fish tank above has been prepared for a seahorse to live in. What is the volume of the water in the tank?

3 ft × 1.5 ft × 2.2 ft = 9.9 ft³

4B. The height of the tank is 2.5 feet. What is the volume of the portion of the tank that is not filled with water?

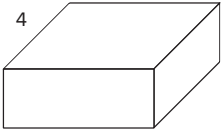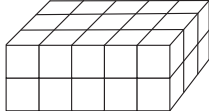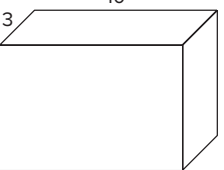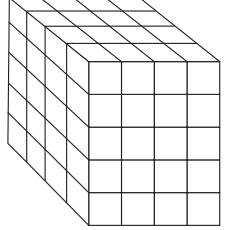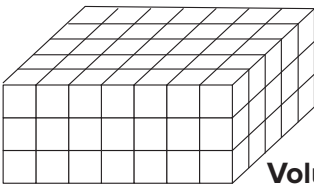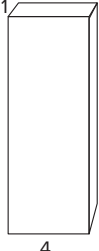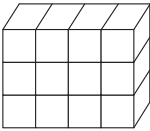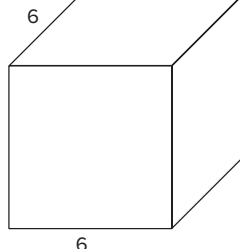**2.5 ft − 2.2 ft = 0.3 ft**
3 ft × 1.5 ft × 0.3 ft = 1.35 ft³

For "Saving Seahorses" — Lesson Plan 3

LEVEL DOWN: MATCHING VOLUMES

R
5
4
2
Volume = **40** units³

S
Volume = **30** units³

N
10
3
8
Volume = **240** units³

K
Volume = **80** units³

T
Volume = **105** units³

M
1
11
4
Volume = **44** units³

W
Volume = **12** units³

I
6
6
6
Volume = **216** units³

What do you get when you cross a school of fish with a herd of elephants?

S	W	I	M	M	I	N	G		T	R	U	N	K	S
30	12	216	44	44	216	240			105	40		240	80	30

PROBLEM OF THE MONTH: CREATE A CREAMERY

STEP 1
Answers will vary. Please accept all shop names.

STEP 2
Menu items and prices will vary. Please accept all items and prices.

STEP 3
Answers for questions 1 through 4 will vary. Please check all answers for accuracy.

STEP 4
Answers for questions 1 through 4 will vary. Please check all answers for accuracy.