

- 1 Ellie rents a pressure washer and a paint sprayer. She is charged \$76 per day for the pressure washer and \$104 per day for the paint sprayer. Which algebraic expression represents Ellie's cost to rent the pressure washer and paint sprayer for  $d$  days?

A.  $(76 + 104) \div d$   
 B.  $76d \times 104d$   
 C.  $104d - 76d$   
 D.  $76d + 104d$

- 2 The entrance fee for a special event is \$55. A total of 721 people attended the event. How much money was earned from the event?

A. \$38,555                      B. \$38,655  
 C. \$39,555                      D. \$39,655

- 3 Stephen needs  $\frac{1}{4}$  cup of oil to make a cake. How much oil will he need to make three cakes?

A.  $\frac{3}{8}$  cup  
 B.  $\frac{3}{6}$  cup  
 C.  $\frac{3}{4}$  cup  
 D.  $\frac{3}{12}$  cup

- 4 A recipe for 2 dozen rolls calls for  $4\frac{3}{4}$  cups of flour. How many cups of flour would you need for 1 dozen?

A.  $2\frac{3}{8}$  cups                      B.  $2\frac{1}{2}$  cups  
 C.  $7\frac{3}{8}$  cups                      D.  $9\frac{1}{2}$  cups

- 5 On Monday, the temperature was 42°F. What is the temperature in degrees Celsius? Use the formula  $C = \frac{5}{9}(F - 32)$ . Round your answer to the nearest whole number.

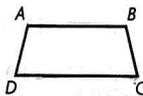
A. 6°C                              B. 8°C  
 C. 41°C                            D. 50°C

- 6 One water bottle contains 725 milliliters of water. Another water bottle contains 946 milliliters of water. How many liters of water are in both water bottles?

1 liter = 1,000 milliliters

A. 0.221 L                      B. 1.671 L  
 C. 2.210 L                      D. 16.71 L

- 7 This shape is a trapezoid. Which two of these describe attributes of the trapezoid?



- A.  $\overline{AB}$  and  $\overline{DC}$  are parallel lines.  
~~B.  $\overline{AB}$  and  $\overline{DC}$  are perpendicular lines.~~  
~~C. Angle  $ADC$  is a right angle.~~  
 D. Angle  $ADC$  is an acute angle.

- 8 According to 2010 U.S. Census, the population of Billings, Montana, was 104,170. Which city's population has a 4 that is 10 times greater than the 4 in 104,170?

A. San Antonio, TX: 1,327,407  
 B. Portland, ME: 66,194  
 C. Santa Fe, NM: 67,947  
 D. Memphis, TN: 646,889

- 9 Elijah worked a total of 8 hours planting a garden. He spent 5 days on the project, working the same amount of time each day. How much time did Elijah spend each day working on the project?

A.  $1\frac{3}{5}$  hours  
 B.  $1\frac{2}{5}$  hours  
 C.  $1\frac{1}{5}$  hours  
 D. 1 hour

- 10 A concession cart roasts 20 pounds of peanuts and sells them in  $\frac{1}{4}$ -pound bags. How many bags can the peanut roaster fill?

A. 5 bags  
 B. 8 bags  
 C. 80 bags  
 D. 100 bags

- 11 Chessa is making a mosaic with tiles. So far, she has used 625 blue tiles and 193 green tiles. How many more blue tiles than green tiles has she used?

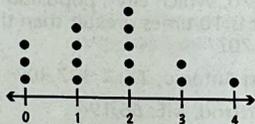
A. 452                      B. 432  
 C. 422                      D. 413

- 12 A stocker is paid \$13.94 an hour. If a stocker works 18 hours during the week, how much will the stocker earn before taxes are deducted?

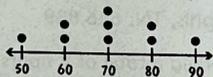
A. \$250.74  
 B. \$250.92  
 C. \$251.10  
 D. \$251.28

- 13 Which dot plot is skewed left?

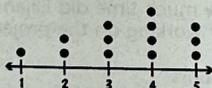
A.



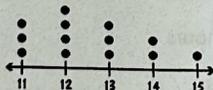
B.



C.



D.

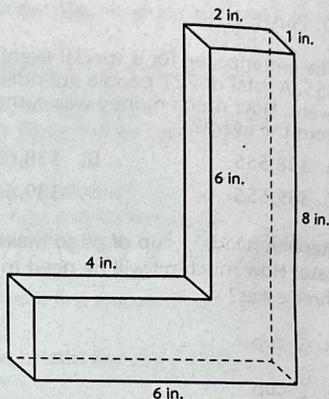


- 14 Mike worked at the warehouse this morning for  $\frac{4}{5}$  hour. He spent  $\frac{2}{3}$  hour unloading deliveries and the rest of time logging the deliveries. How much time did he spend logging the deliveries?

A.  $\frac{1}{15}$  hour  
 B.  $\frac{2}{15}$  hour  
 C.  $\frac{3}{15}$  hour  
 D.  $\frac{6}{15}$  hour

- 15 What is the volume of this solid?

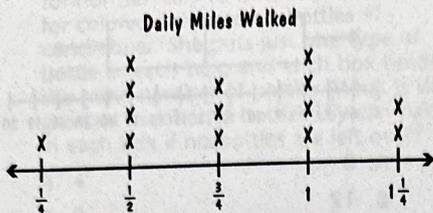
Volume of a rectangular prism =  $l \times w \times h$



- A. 18 in.<sup>3</sup>                      B. 24 in.<sup>3</sup>  
 C. 30 in.<sup>3</sup>                      D. 48 in.<sup>3</sup>
- 16 A carpenter uses  $2\frac{2}{3}$  gallons of stain to stain a set of cabinets. How many gallons does he need to stain 3 sets of cabinets?

A. 7 gallons  
 B.  $7\frac{1}{3}$  gallons  
 C. 8 gallons  
 D.  $8\frac{2}{3}$  gallons

- 17 The line plot shows how many miles Phil walked for 2 weeks.



How many days did Phil walk a mile or more?

- 18 Last month, there were 530 customer service calls. Customers rated 72% of the calls satisfactory. Which algebraic expression represents the number of satisfactory calls last month? Use  $s$  to represent the number of satisfactory calls.

- A.  $s = \frac{72}{100}(530)$   
 B.  $530 = \frac{72}{100}s$   
 C.  $530s = \frac{72}{100}$   
 D.  $72s = 530$

- 19 Shaun has  $\frac{7}{8}$  of a bag of potting soil. He needs  $\frac{1}{16}$  of a bag to pot a tree sapling. How many tree saplings can Shaun pot?

- A. 9 saplings  
 B. 14 saplings  
 C. 16 saplings  
 D. 18 saplings

- 20 Mt. Hood in Oregon has an elevation of 11,239 feet above sea level. What is that elevation rounded to the nearest thousand?

- A. 11,000  
 B. 11,200  
 C. 11,240  
 D. 12,000

- 21 Each container has  $\frac{3}{4}$  cup of salsa. There are 5 containers of salsa on the counter. How many cups of salsa are on the counter?

- A.  $2\frac{3}{4}$  cups  
 B. 3 cups  
 C.  $3\frac{1}{4}$  cups  
 D.  $3\frac{3}{4}$  cups

- 22 Which two statements about a square are true?

- A. It has four sides with equal lengths.  
 B. It has exactly one pair of parallel sides.  
 C. It has four right ( $90^\circ$ ) angles.  
 D. It has one angle greater than  $90^\circ$ .

- 23 Shelia runs 2 different reports each day at work. The inventory report takes twice as long to run as the sales report. If it takes 3 minutes to run the sales report, how much time does she spend running reports during a 5-day work week?

- A. 63 minutes  
 B. 45 minutes  
 C. 30 minutes  
 D. 22 minutes

- 24 Last week, a pound of apples cost \$0.97. This week, a pound of apples costs \$1.24. What is the difference between this week's cost and last week's cost?

- A. \$0.30  
 B. \$0.37  
 C. \$0.27  
 D. \$0.24

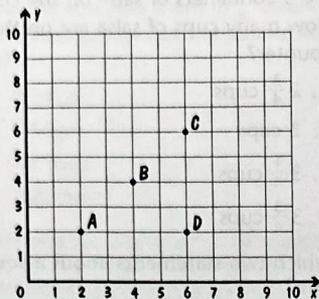
- 25 A small airplane flew 945 miles in 7 hours. How many miles did it fly per hour?

- A. 127 miles per hour  
 B. 132 miles per hour  
 C. 135 miles per hour  
 D. 137 miles per hour

- 26 Paul bought a case of 72 plates. Each box in the case has 8 plates. How many boxes are in the case?

- A. 9 boxes  
 B. 68 boxes  
 C. 80 boxes  
 D. 576 boxes

- 27 What is the location of point  $D$ ?



- A. (2, 6)                      B. (6, 6)  
C. (2, 2)                      D. (6, 2)

- 28 Bus Route 76 and Bus Route 2 both stop at the transit center. Bus Route 76 leaves the transit center every 26 minutes. Bus Route 2 leaves every 39 minutes. How often do both busses from both routes leave at the same time?

- A. every 13 minutes  
B. every 26 minutes  
C. every 39 minutes  
D. every 78 minutes

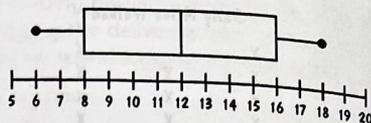
- 29 The corner store is  $\frac{5}{8}$  of a mile from Chase's office. The café is  $\frac{1}{2}$  as far. How far away from Chase's office is the café?

- A.  $\frac{1}{8}$  mile  
B.  $\frac{5}{16}$  mile  
C.  $\frac{6}{10}$  mile  
D.  $\frac{11}{16}$  mile

- 30 Jenny rents space in a food truck park for \$625 per month. How much rent will she pay in 12 months?

- A. \$7,400  
B. \$7,490  
C. \$7,500  
D. \$7,512

- 31 What is the median of the data displayed on the box plot?



- A. 8  
B. 12  
C. 16  
D. 18
- 32 Find the next three numbers in the pattern.

74, 68, 62, 56, 50, ...

- A. 38, 26, 14  
B. 44, 37, 29  
C. 44, 38, 32  
D. 71, 35, 32
- 33 When rounding 347.737 to a certain place, Jason wrote 347.74. What will Jason write when he rounds 163.343 to the same place?

- A. 160.00  
B. 163.00  
C. 163.30  
D. 163.34

- 34 Lana sold 6 roast beef sandwiches during lunch. She sold 12 times as many turkey sandwiches. Which two equations can be used to find the number of turkey sandwiches,  $t$ , that she sold?

- A.  $6 \times t = 12$   
B.  $6 \times 12 = t$   
C.  $12 \times 6 = t$   
D.  $t \times 6 = 12$

- 35 Tanya has \$200 to spend on supplies. Which inequality represents this situation, where  $n$  represents the cost of supplies?

- A.  $n = 200$                       B.  $n \leq 200$   
C.  $n > 200$                       D.  $n \geq 200$

- 36 Lily packs and ships beauty supplies to a salon. She has 32 bottles of shampoo for normal hair, 48 bottles of shampoo for colored hair, and 64 bottles of conditioner. She puts just one type of bottle in each box, and each box holds the same number of bottles. What is the greatest number of bottles Lily can pack in each box if no bottles are left over?

A. 4  
B. 8  
C. 16  
D. 26

- 37 Which of the following is a statistical question?

A. How do rainy days affect people's moods?  
B. How many days did it rain last week in Cincinnati?  
C. Do you own an umbrella?  
D. What is the chance of rain tomorrow?

- 38 A box of books weighs  $12\frac{1}{8}$  pounds. After Maggie takes out three books, the box weighs  $8\frac{3}{4}$  pounds. How much did the three books weigh?

A.  $3\frac{3}{8}$  pounds      B.  $3\frac{5}{8}$  pounds  
C.  $4\frac{1}{8}$  pounds      D.  $4\frac{5}{8}$  pounds

- 39 There are 8 rolls of carpet. Each roll of carpet is 6 yards long. How long are the 8 rolls of carpet in feet?

1 yard = 3 feet

A. 576 ft      B. 144 ft  
C. 42 ft      D. 16 ft

- 40 Six pieces of ribbon are in a box. 6.45 cm, 4.23 cm, 8.98 cm, 7.76 cm, 3.54 cm, 5.82 cm

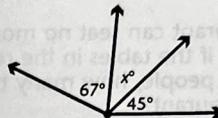
Which ribbon length is greater than 4.25 and less than 6.40 centimeters?

A. 4.23 centimeters  
B. 5.82 centimeters  
C. 6.45 centimeters  
D. 7.76 centimeters

- 41 Eight times as many people selected medical coverage compared to those who selected vision coverage. 864 people selected medical coverage. How many people selected vision coverage?

A. 8      B. 18  
C. 108      D. 6,912

- 42 The sum of the angles is  $152^\circ$ . What is the measure of the unknown angle?

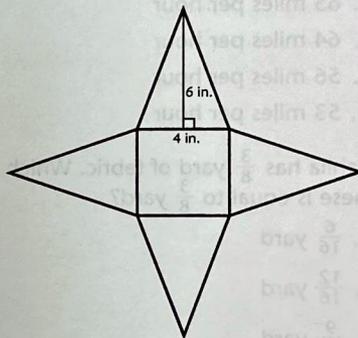


A.  $39^\circ$       B.  $40^\circ$   
C.  $41^\circ$       D.  $42^\circ$

- 43 What is the total surface area of the net?

Area of a triangle =  $\frac{1}{2}bh$

Area of a square =  $s^2$



A. 5 square inches  
B. 16 square inches  
C. 64 square inches  
D. 112 square inches

- 44 Which number is a multiple of 9?

A. 16  
B. 35  
C. 72  
D. 98

- 45 Angle  $A$  has a measure of  $45^\circ$ . Angle  $B$  is made from 36 one-degree angles. Which sentence is true?
- The measure of angle  $A$  is  $9^\circ$  greater than the measure of angle  $B$ .
  - The measure of angle  $B$  is  $9^\circ$  greater than the measure of angle  $A$ .
  - The measure of angle  $A$  is  $81^\circ$  greater than the measure of angle  $B$ .
  - The measure of angle  $B$  is  $81^\circ$  greater than the measure of angle  $A$ .
- 46 A restaurant can seat no more than 108 people. If the tables in the restaurant seat up to 4 people, how many tables are in the restaurant?
- 26
  - 27
  - 52
  - 54
- 47 Ty drove 195 miles in 3 hours. What was his rate of miles per hour?
- 65 miles per hour
  - 64 miles per hour
  - 56 miles per hour
  - 53 miles per hour
- 48 Dahlia has  $\frac{3}{8}$  yard of fabric. Which two of these is equal to  $\frac{3}{8}$  yard?
- $\frac{6}{16}$  yard
  - $\frac{12}{16}$  yard
  - $\frac{9}{24}$  yard
  - $\frac{15}{24}$  yard

- 49 Mateo deposited his paycheck for \$1,873.32. He made a car payment for \$215.45, spent \$85.24 on groceries, withdrew \$20 from the ATM twice, and split the cost of a \$15.90 pizza with his friend.

#### Part A

Which expression represents the situation?

- $1,873.32 - 215.45 - 85.24 - 2 \times (20 - 15.90) \div 2$
- $1,873.32 - 215.45 - 85.24 - (2 \times 20) - (15.90 \div 2)$
- $1,873.32 - 215.45 - 85.24 - (20 \div 2) - (15.90 \times 2)$
- $1,873.32 - 215.45 - 85.24 - 20^2 - 15.90 \div 2$

#### Part B

How much money does Mateo have left?

- \$1,568.53
  - \$1,530.73
  - \$1,524.68
  - \$1,164.68
- 50 A basket in the shape of a rectangular prism is 4 feet long, 2 feet wide, and 2 feet tall. What is the volume of the basket?
- Volume of a rectangular prism =  $l \times w \times h$
- 4 ft<sup>3</sup>
  - 8 ft<sup>3</sup>
  - 16 ft<sup>3</sup>
  - 256 ft<sup>3</sup>
- 51 Which of the following is a pair of equivalent expressions?
- $5n + 2k$  and  $(5 + 2)(n + k)$
  - $3(n + 9)$  and  $3n + 9$
  - $4nx^4$  and  $4n^4x$
  - $3n + (2n + 12)$  and  $12 + 5n$

**Instructions:** This chart can help you determine your strengths and weaknesses on the math skills assessed on the TABE 11 & 12 test. Use the Answers and Explanations starting on page 125 to check your answers to the test. Then, place an X next to the item numbers you missed. Review the lessons identified for any missed items.

Pretest Item	Correct/Incorrect	For incorrect items, review the following lesson
1		Lesson 24
2		Lesson 5
3		Lesson 9
4		Lesson 16
5		Lesson 25
6		Lesson 39
7		Lesson 48
8		Lesson 1
9		Lesson 8
10		Lesson 17
11		Lesson 3
12		Lesson 23
13		Lesson 46
14		Lesson 11
15		Lesson 42
16		Lesson 15
17		Lesson 40
18		Lesson 27
19		Lesson 18
20		Lesson 2
21		Lesson 13
22		Lesson 50
23		Lesson 37
24		Lesson 22
25		Lesson 7
26		Lesson 28
27		Lesson 49

Pretest Item	Correct/Incorrect	For incorrect items, review the following lesson
28		Lesson 34
29		Lesson 14
30		Lesson 4
31		Lesson 47
32		Lesson 35
33		Lesson 21
34		Lesson 6
35		Lesson 29
36		Lesson 33
37		Lesson 45
38		Lesson 12
39		Lesson 38
40		Lesson 20
41		Lesson 31
42		Lesson 44
43		Lesson 51
44		Lesson 32
45		Lesson 43
46		Lesson 30
47		Lesson 19
48		Lesson 10
49		Lesson 36
50		Lesson 41
51		Lesson 26

## Pretest

**1. D.** Ellie is charged \$76 a day for  $d$  days for the pressure washer and \$104 a day for  $d$  days for the paint sprayer. Her cost for the rental is the sum of the two products. The algebraic expression  $76d + 104d$  represents Ellie's cost. 6.EE.2.a, 6.EE.2.b

**2. D.** Multiply  $721 \times \$55$ . 5.NBT.5

$$\begin{array}{r} 1 \\ 1 \\ 721 \\ \times 55 \\ \hline 3,605 \\ + 36,050 \\ \hline 39,655 \end{array}$$

**3. C.** To make 3 cakes, he needs triple the amount. Adding  $\frac{1}{4} + \frac{1}{4} + \frac{1}{4}$  equals  $\frac{3}{4}$ . 4.NF.3.a, 4.NF.3.b

**4. A.**  $4\frac{3}{4} = \frac{19}{4}$ .  $\frac{19}{4} \div 2 = \frac{19}{4} \times \frac{1}{2} = \frac{19}{8} = 2\frac{3}{8}$  cups. 5.NF.7.a, 5.NF.7.c

**5. A.** Substitute the value into the equation. Perform the subtraction within the parentheses first. Next, perform the multiplication, and then the division.

$$\text{For } F = 42^\circ\text{F}, C = \frac{5}{9}(42 - 32) = \frac{5}{9}(10) = \frac{50}{9} = 5\bar{5}, \text{ which rounds to } 6. \text{ 6.EE.2.c}$$

**6. B.** Add  $725 \text{ mL} + 946 \text{ mL} = 1,671 \text{ mL}$ . There are 1,000 mL in 1 liter, so  $1,671 \text{ mL} = 1.671 \text{ L}$ . 5.MD.1

**7. A, D.** A trapezoid has exactly one pair of parallel sides.  $\overline{AB}$  and  $\overline{DC}$  are parallel. An acute angle is smaller than a right angle. Angle  $\angle ADC$  is acute. 4.G.1

**8. D.** The value of the 4 in 104,170 is 4,000.  $4,000 \times 10 = 40,000$ . The value of 4 in 646,889 is 40,000. 4.NBT.1

**9. A.** Divide  $8 \div 5 = 1\frac{3}{5}$ . Elijah spent  $1\frac{3}{5}$  hours on the project each day. 5.NF.3

**10. C.**  $20 \div \frac{1}{4} = 20 \times 4 = 80$ . 5.NF.7.b, 5.NF.7.c

**11. B.** The phrase *how many more* indicates finding a difference, which calls for subtraction. Subtract 193 (the number of green tiles) from 625 (the number of blue tiles). She has used 432 more blue tiles. 4.NBT.4

$$\begin{array}{r} 625 \\ -193 \\ \hline 432 \end{array}$$

**12. B.** Multiply the hourly rate by the number of hours worked.  $\$13.94 \times 18 = \$250.92$ . 5.NBT.7

**13. C.** If most of the data are to the right of the center, the distribution is skewed left. 6.SP.2

**14. B.** To solve  $\frac{4}{5} - \frac{2}{3}$ , you must first find a common denominator. The common denominator is 15.  $\frac{12}{15} - \frac{10}{15} = \frac{2}{15}$ . 5.NF.2, 4.NF.3.d

**15. B.** Decompose the shape into two rectangular prisms and find the volume of each. Then add the volumes together.

$$\text{Left: } 4 \text{ in.} \times 1 \text{ in.} \times (8 \text{ in.} - 6 \text{ in.}) = 4 \text{ in.} \times 1 \text{ in.} \times 2 \text{ in.} = 8 \text{ in.}^3$$

$$\text{Right: } 2 \text{ in.} \times 1 \text{ in.} \times 8 \text{ in.} = 16 \text{ in.}^3$$

$$16 \text{ in.}^3 + 8 \text{ in.}^3 = 24 \text{ in.}^3 \text{ 5.MD.5.c}$$

**16. C.**  $2\frac{2}{3} \times 3 = \frac{8}{3} \times \frac{3}{1}$  Multiply the numerators.  $8 \times 3$ . Multiply the denominators.  $3 \times 1$ .  $\frac{24}{3} = 8$ . 5.NF.6

**17. B.** Add the marks above the columns for 1 mile and  $1\frac{1}{4}$  miles:  $4 + 2 = 6$ . 5.MD.2

**18. A.** The key word *percent* literally means "per hundred" and indicates multiplication. Multiply the total number of calls by  $\frac{72}{100}$  to find the number of satisfactory calls. 6.EE.6

**19. B.** To divide, invert the divisor and multiply the numerators and denominators separately. Then simplify.

$$\frac{7}{8} \div \frac{1}{16} = \frac{7}{8} \times \frac{16}{1} = \frac{112}{8} = 14 \text{ 6.NS.1}$$

**20. A.** To round to the nearest thousand, look at the hundreds place (2). Because 2 is less than 5, round down to get 11,000. 4.NBT.1

**21. D.**  $\frac{3}{4} \times 5 = \frac{3 \times 5}{4} = \frac{15}{4} = 3\frac{3}{4}$ . 4.NF.4.a, 4.NF.4.b

**22. A, C.** A square is a parallelogram that has four right ( $90^\circ$ ) angles and four sides with equal lengths. 5.G.3

**23. B.** Find how much time it takes per day to run the reports:  $3 + (2 \times 3) = 3 + 6 = 9$  minutes per day to run reports. Multiply the daily time by the number of days in the work week:  $9 \times 5 = 45$  minutes. She spends 45 minutes a week running both reports. 4.OA.3

**24. C.** Subtract to find the difference.

$$\begin{array}{r} 0 \text{ 11 14} \\ 1.24 \\ -0.97 \\ \hline 0.27 \end{array} \text{ 5.NBT.7}$$

25. C. Divide  $945 \div 7$ . Sample method:

$$\begin{array}{r} 135 \\ 7 \overline{) 945} \\ \underline{-7} \phantom{0} \\ 24 \phantom{0} \\ \underline{-21} \phantom{0} \\ 35 \\ \underline{-35} \\ 0 \end{array}$$

4.NBT.6, 6.NS.2

26. A. Divide the total by the known factor to find the unknown factor.  $72 \div 8 = 9$  6.EE.7, 6.EE.9
27. D. Point D is located at (6,2) on the coordinate plane. 5.G.1
28. D. Multiples of 26: 26, 52, 78, 104, ...  
Multiples of 39: 39, 78, 117, 156, ...  
LCM is 78.  
Busses from both routes will leave at the same time every 78 minutes. 6.NS.4
29. B. Multiply the distance to the corner store by  $\frac{1}{2}$ .  
 $\frac{5}{8} \times \frac{1}{2} = \frac{5}{16}$ . 4.NF.4.c, 5.NF.4, 5.NF.5.b
30. C. Multiply  $\$625 \times 12$ . Sample method:  
 $\$600 \times 12 = \$7,200$   
 $\$20 \times 12 = \$240$   
 $\$5 \times 12 = \$60$   
Add the partial products:  $\$7,200 + \$240 + \$60 = \$7,500$ . 4.NBT.5
31. B. The median, or middle number in the data set, is 12. 6.SP.4
32. C. The rule is "subtract 6."  $50 - 6 = 44$ ;  $44 - 6 = 38$ ;  $38 - 6 = 32$ . The next three numbers in the sequence are 44, 38, and 32. 4.OA.5
33. D. The number 347.737 rounded to the nearest hundredth is 347.74 because  $7 > 5$ . The number 163.343 rounded to the nearest hundredth is 163.34 because  $3 < 5$ . 5.NBT.4
34. B, C. 12 times as many as 6 can be represented by  $6 \times 12 = t$  or  $12 \times 6 = t$ . 4.OA.1
35. B. The cost of supplies needs to be less than or equal to 200. 6.EE.8
36. C. Factors of 32: 1, 2, 4, 8, 16, 32  
Factors of 48: 1, 2, 3, 4, 6, 8, 12, 16, 24, 48  
Factors of 64: 1, 2, 4, 6, 8, 16, 32, 64  
GCF is 16. 6.NS.4
37. A. The question "How do rainy days affect people's moods?" can be answered with more than one answer. 6.SP.1
38. A. Subtract to find the weight of the three books that were removed.  
 $12\frac{1}{8} - 8\frac{3}{4} = 12\frac{1}{8} - 8\frac{6}{8}$ . Regroup to subtract.  
 $(11 + 1 + \frac{1}{8}) - 8\frac{6}{8} = (11 + \frac{8}{8} + \frac{1}{8}) - 8\frac{6}{8} = 11\frac{9}{8} - 8\frac{6}{8} = 3\frac{3}{8}$  pounds. 4.NF.3.c
39. B. Multiply 6 by 8 to find the length in yards.  $6 \times 8 = 48$  yards. There are 3 feet in 1 yard, so multiply 48 by 3.  $48 \times 3 = 144$  feet. 5.MD.1
40. B. 5.82 is the only number that is greater than 4.55 and less than 6.40. 4.NF.7, 5.NBT.3.a, 5.NBT.3.b
41. C. If vision coverage =  $v$ , then medical coverage =  $8v$ .  $864 = 8v$ ;  $864 \div 8 = v$ ;  $108 = v$ . 4.OA.2
42. B.  $152^\circ = 67^\circ + x^\circ + 45^\circ$   
 $152^\circ = 112^\circ + x$   
 $40^\circ = x$   
4.MD.6, 4.MD.7
43. C. Four triangular faces:  $4(\frac{1}{2}bh) = 4(\frac{1}{2} \times 4 \text{ in.} \times 6 \text{ in.}) = 4(\frac{1}{2} \times 24 \text{ in.}^2) = 4(12 \text{ in.}^2) = 48 \text{ in.}^2$   
Base:  $s^2 = (4 \text{ in.})^2 = 16 \text{ in.}^2$   
Total surface area:  $48 \text{ in.}^2 + 16 \text{ in.}^2 = 64 \text{ in.}^2$   
6.G.4
44. C. Multiples of 9: 9, 18, 27, 36, 45, 54, 63, 72, 81, 90, 99, .... The number 72 is a multiple of 9. 4.OA.4
45. A. Angle B measures  $36^\circ$ . The measure of angle A is  $45^\circ$ .  $45^\circ - 36^\circ = 9^\circ$ . Angle A is greater than angle B by  $9^\circ$ . 4.MD.5.b
46. B. Set up the inequality:  $108 \geq 4t$ . Solve for  $t$ .  $108 \div 4 \geq t$ ;  $27 \geq t$ . 6.EE.5
47. A. Divide:  $\frac{195}{3} = 65$ . Ty drove 65 miles per hour. 6.RP.2
48. A, C.  $\frac{3}{8} \times \frac{2}{2} = \frac{6}{16}$ ;  $\frac{3}{8} \times \frac{3}{3} = \frac{9}{24}$  4.NF.1
49. Part A: B. Subtract each amount Mateo spent from \$1,873.32. The total amount withdrawn from the ATM is  $(2 \times 20)$ . His cost for the pizza is  $(15.90 \div 2)$ .  
Part B: C. Simplify within the parentheses first, then subtract in order from left to right.  
 $1,873.32 - 215.45 - 85.24 - 40 - 7.95 = \$1,524.68$  5.OA.1
50. C.  $(4 \text{ ft} \times 2 \text{ ft}) \times 2 \text{ ft} = 8 \text{ ft}^2 \times 2 \text{ ft} = 16 \text{ ft}^3$   
5.MD.4, 5.MD.5.a, 5.MD.5.b
51. D. Apply the commutative and associative properties of addition.  
 $3n + (2n + 12) = (3n + 2n) + 12 = 5n + 12$   
 $5n + 12 = 12 + 5n$   
6.EE.3, 6.EE.4

## Lesson 1

## Place Value in Whole Numbers

(4.NBT.1)

1. D. The value of the 5 in 458,039 is 50,000. The value of the 5 in 271,145 is 5.  $50,000 \div 5 = 10,000$ .
2. B. The value of the 6 in 237,629 is 600.  $600 \times 10 = 6,000$ . The value of a 6 in 426,579 is 6,000.

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