

Common Core Benchmark Test - Unit 5

Indicate the answer choice that best completes the statement or answers the question.

1. Every student at West Arrow Middle School took a math test. The table below shows how many students earned each grade. How many more students need to earn an A on the test for the ratio of number of students with A's to total number of students to be 1:4?

Grade Earned	Number of Students
A	15
B	33
C	17
D	5
F	2

- a. 4 b. 14
 c. 25 d. 26
2. Sam tracked how much snow fell during a 4-day snow storm. He recorded the number of feet per day in the table below. What is the average number of inches per day of snowfall?

Day	1	2	3	4
Snowfall (ft)	1	0.4	0.2	1.2

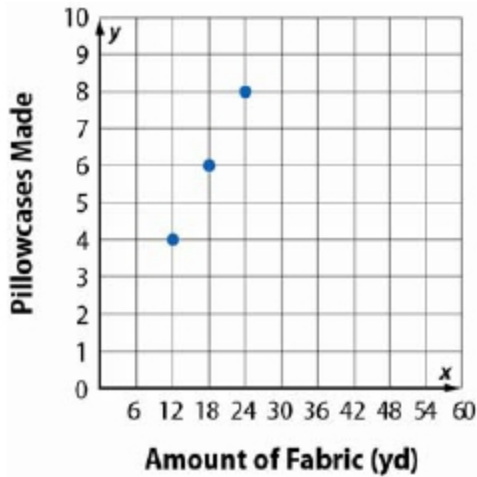
- a. 33.6 inches per day b. 8.4 inches per day
 c. 2.8 inches per day d. 0.7 inch per day
3. Mary went to 3 different stores. The table below shows the merchandise total at each store and the amount of tax. The tax rate is proportional. How much was the merchandise total at the book store?

Store	Merchandise Total (\$)	Tax (\$)
Clothing Store	110.50	6.63
Book Store		3.90
Grocery Store	136.50	8.19

- a. \$18.72 b. \$65.00
 c. \$68.80 d. \$312.00

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4. The number of yards of fabric purchased is proportional to the number of pillowcases made. Which statement describes the relationship expressed by the graph?



- Each pillowcase is made from 6 yards of fabric.
 - For every 15 yards of fabric purchased, 7 pillowcases are made.
 - For every 3 yards of fabric purchased, 1 pillowcase is made.
 - If Emma buys 21 yards of fabric, she can make 9 pillowcases.
5. A cafeteria manager tracked the beverages that students picked daily for lunch for a week. Fifty-five percent of the students that picked milk choose chocolate milk. How many students picked white milk?

Beverage	Number of Students
Juice	54
Bottled water	18
Milk	40

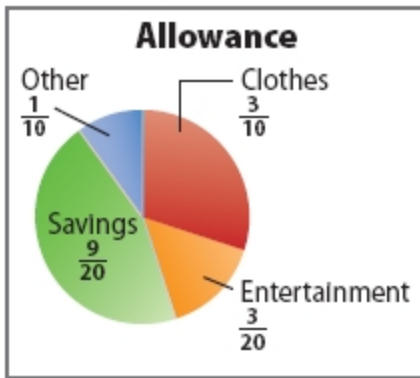
- 18
 - 22
 - 45
 - 72
6. The table shows the percent of people surveyed that picked a specific season as their favorite. What fraction represents the people that picked Spring and Fall?

Favorite Season	
Season	Percent
Fall	35
Winter	15
Spring	20
Summer	30

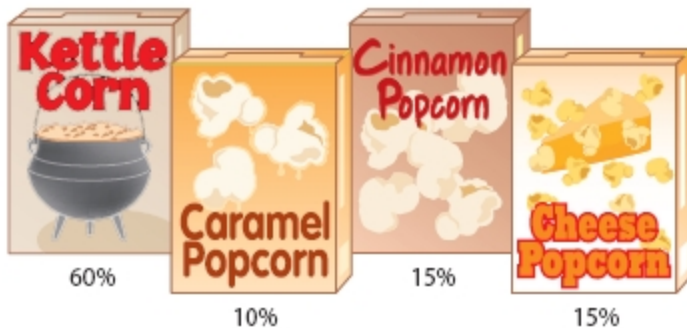
- $\frac{1}{5}$
- $\frac{3}{10}$
- $\frac{7}{20}$
- $\frac{11}{20}$

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7. Johnny receives \$25 a week as an allowance. He made a graph to represent how he spends his allowance. What decimal represents the amount spent on entertainment?



- a. 0.15 b. 0.3
 c. 0.32 d. 0.6
8. The movie theater has four types of popcorn for sale. Of the boxes of popcorn sold Saturday night, 30 were cinnamon popcorn. Assuming the percentages shown represent the percent sold out of the total boxes for sale, how many of those boxes sold were kettle corn?



- a. 20 b. 60
 c. 120 d. 200
9. The library keeps a record of the types of books checked out each month. The table shows the number of several types of books checked out. What percent of the total books checked out were fiction?

Type of Book	Number Checked Out
Historical	38
Biography	17
Fiction	54
Informational	11

- a. 0.45 b. 45
 c. 54 d. 55

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10. An ice cream truck driver sells a variety of treats. The table below shows the 5 top selling treats for the summer. Which of the following statements is true?

Ice Cream Treat	Number Sold
Icy Pop	105
Ice Cream Sandwich	250
Fudge Bar	205
Slushie	145
Crunchie Coated Bar	195

- a. The fudge bar is 209% of the total sales.
 b. The ratio of icy pop and crunchie coated bar to the total is 1:3.
 c. The slushie is the highest percent treat sold.
 d. The crunchie coated bar is sold at a higher percentage than the ice cream sandwich.
11. Lauren is buying school supplies. She has to purchase 5 folders, 3 pencils, 4 notebooks, and 1 book bag. What is the total cost she spends on her school supplies?

Item	Cost (\$)
Folder	0.75
Pencil	0.15
Notebook	2.25
Book bag	15.75

- a. \$13.20 b. \$18.90
 c. \$28.95 d. \$94.50
12. Becca used $41\frac{1}{4}$ cups of pumpkin filling to make 15 pumpkin rolls. About how many cups did she use per pumpkin roll?
 a. less than 1 cup b. between 1 and 2 cups
 c. between 2 and 3 cups d. between 3 and 4 cups
13. Julie is building a rectangular cover for the sandbox in her backyard. The sandbox cover needs to measure 4 feet long by 2.5 feet wide. The material she is building the cover from cost \$5.45 per square foot. What is the cost to make the sandbox cover?
 a. \$10.00 b. \$11.95
 c. \$54.50 d. \$119.50
14. Henry spent \$23.50 on a basketball, \$65.90 on shoes, and \$6.75 on socks. He had \$10.30 left in his wallet after his purchases. How much money was in his wallet before his purchases.
 a. \$85.85 b. \$96.15
 c. \$99.70 d. \$106.45

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15. Eric, Raj, and Josh were assigned the same book to read for reading group. The first night they had the book, Eric read $\frac{2}{3}$ as many pages as Josh and Raj read $\frac{1}{4}$ as many pages as Josh. Josh read 24 pages. How many more pages did Eric read than Raj?
 a. 6 pages b. 10 pages
 c. 16 pages d. 22 pages
16. Allie earned money babysitting. She put $\frac{2}{3}$ of the money in her savings account. She took the rest of the money to the movies. She spent $\frac{1}{2}$ of this amount on a ticket and $\frac{1}{5}$ of this amount on snacks. What fraction of her movie money did she spend on a ticket and snacks?
 a. $1\frac{11}{30}$ b. $\frac{7}{10}$
 c. $\frac{7}{30}$ d. $\frac{1}{15}$
17. Samantha bought 13.5 pounds of gummy bears. She separated them into 1.5-pound bags to pass out at her birthday party. How many bags did she make?
 a. 9 b. 12
 c. 15 d. 20.25
18. Kendra allocated \$400 to spend on hotel expenses on vacation. She spent $\frac{5}{8}$ of her budget. How much did she spend on hotel expenses on vacation?
 a. \$180 b. \$250
 c. \$275 d. \$640
19. Louise bought a 6-pound bag of carrots. How many days can she take $\frac{3}{5}$ -pound servings of carrots in her lunch?
 a. 3.6 days b. 5 days
 c. 8 days d. 10 days
20. Robert has a starting balance \$128 in his checking account. The table below shows his next 5 transactions. How much is in his account after the 5 transactions?
- | |
|-----------------------------|
| Spent \$57 at grocery store |
| Deposited \$30 into account |
| Spent \$45 at shoe store |
| Spent \$13 at lunch |
| Deposited \$25 into account |
- a. \$18 b. \$55
 c. \$68 d. \$298

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21. Which set displays numbers ordered from least value to greatest value?

- a. $\{-|-1|, -0.5, \frac{1}{2}|-1|, 1.25\}$ b. $\{\frac{1}{2}, -0.5, 1.25, |-1|, -|-1|\}$
 c. $\{-|-1|, \frac{1}{2}, -0.5, 1.25, -|-1|\}$ d. $\{\frac{1}{2}, -|-1|, |-1|, 1.25, -0.5\}$

22. Which decimal represents the unshaded portion of the figure?



- a. $0.\overline{7}$ b. 0.7
 c. $0.\overline{2}$ d. 0.2
23. What are the coordinates of D' after $D(4, 2.5)$ is reflected across y -axis?
 a. (2.5, 4) b. (4, -2.5)
 c. (-4, 2.5) d. (-4, -2.5)

24. What is the value of the expression below in simplest terms?

$$9^3 - (65 - 3^2 \times 6) + 5$$

- a. 398 b. 429
 c. 723 d. 912
25. Frank joined the Automotive Safety Club. He pays an annual fee of \$55 and pays \$15 each time he calls for assistance. Which expression below represents the amount Frank pays in a year where he makes c calls for assistance.
 a. $15 + 55c$ b. $55 + 15c$
 c. $55(15c)$ d. $55 - 15c$
26. Theresa bought 2 books and 2 DVDs at the book store. If b represents for the cost of a book and d represents the for cost of a DVD, which expression models the amount Theresa paid at the book store?
 a. $2 + b + d$ b. $2b + d$
 c. $2d + b$ d. $2(b + d)$
27. Which of the following is the first step in finding the value of r the equation $13r = 65$?
 a. Add 13 to each side.
 b. Subtract 13 from each side.
 c. Divide each side by 13.
 d. Multiply each side by 13.

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28. Harriet jogged 0.75 mile and then stopped to stretch. She jogged a total 7.9 miles. The equation $m + 0.75 = 7.9$ models this situation. What is the first step in solving for m ?
- Add 0.75 to each side.
 - Subtract 0.75 from each side.
 - Add 7.9 to each side.
 - Subtract 7.9 from each side.

29. William traveled 736 miles in $4\frac{3}{5}$ hours by plane. The equation $736 = 4\frac{3}{5}r$ can be solved to find the average rate of the plane. What is the value of r ?
- 110
 - 160
 - 625
 - 3,385

30. Georgia bought 11 boxes of cookies, each containing 13 cookies. How many total cookies did Georgia purchase?
- 1.18
 - 2
 - 24
 - 143

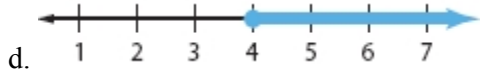
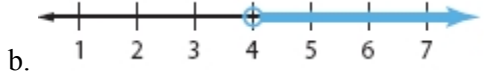
31. The table shows the number of magazine sold each day of the magazine sale by Ruby and Missy. How many more magazines will Ruby sell than Missy after 6 days?

Days	Ruby	Missy
1	3	5
2	5	8
3	7	11
4	9	14

- 33
 - 20
 - 13
 - 7
32. Pine View Elementary charges each family a \$90 cafeteria fee at the beginning of the school year and each child pays \$2.75 per lunch. Which equation models the amount y a family pays after buying b lunches?
- $y = 2.75 + 90b$
 - $y = 90 + 2.75b$
 - $y = 2.75b - 90$
 - $y = 90b - 2.75$
33. If $x \leq 5$ and $x > 0$, which whole numbers are solutions for x ?
- {0, 1, 2, 3, 4, 5}
 - {1, 2, 3, 4}
 - {1, 2, 3, 4, 5}
 - {0, 1, 2, 3, 4}

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34. Which number line shows the solution to $3 + x > 7$?



35. Mila has to cut a parallelogram with a height of 6 inches and a base of 6 inches from a rectangular piece of fabric with a length of 12 inches and a width of 7 inches. How much fabric will be left from the rectangle once the parallelogram is removed?

- a. 84 in^2 b. 48 in^2
 c. 42 in^2 d. 36 in^2

36. A trapezoid has bases measuring 11 feet and 9 feet and a height of 6 feet. What is the area of the trapezoid?

- a. 26 ft^2 b. 60 ft^2
 c. 120 ft^2 d. 594 ft^2

37. Sammy is painting a right triangle on his bedroom wall. The base and height of the triangle are both 4 feet and the hypotenuse is 5.7 feet. What is the area of his wall that will be painted?

- a. 8 ft^2 b. 11.4 ft^2
 c. 16 ft^2 d. 22.8 ft^2

38. The perimeter of a trapezoid is 21 centimeters. The trapezoid is reduced so that each side is $\frac{1}{4}$ times as large as the original. What effect does this reduction have on the perimeter?

- a. The perimeter is 4 times smaller.
 b. The perimeter is $5\frac{1}{4}$ smaller.
 c. The perimeter is 16 times smaller.
 d. The perimeter is 441 smaller.

39. Wilson has a rectangular-shaped pool in his backyard measuring 4 feet wide, 7 feet long, and 5 feet deep. He fills the pool 85% with water. What is the volume of the water in their pool?

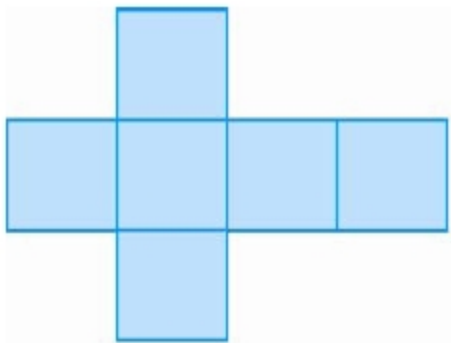
- a. 21 ft^3 b. 101 ft^3
 c. 119 ft^3 d. 140 ft^3

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40. The table below shows the dimensions of the base a triangular prism with a volume of 37.5 ft^3 . What is the height of the prism?

Side	Measure (ft)
Base	5
Height	4
Hypotenuse	6.4

- a. 2.4 ft b. 2.9 ft
 c. 3.75 ft d. 6.4 ft
41. Which 3 dimensional shape will the net below create?



- a. rectangular pyramid b. cylinder
 c. cube d. cone
42. Hope is making 3 pyramids out of paper for a project. Each pyramid will have a square base with sides measuring 4.5 inches and lateral height of 7 inches. What is the combined surface area of the three pyramids?
- a. 249.75 in^2 b. 83.25 in^2
 c. 36 in^2 d. 20.25 in^2

43. The table shows the number of lawns Freddie cut each day for two weeks. What is the difference of the mean between Week 1 and Week 2?

Lawns Cut		
Day	Week 1	Week 2
Wednesday	3	5
Thursday	10	8
Friday	8	9
Saturday	16	14

- a. 18.25 b. 9.25
 c. 9 d. 0.25

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44. Four truck drivers recorded the distance they drove each day for a week as shown in the table below. Which driver's data set has the least median value?

Miles Driven Daily							
	S	M	T	W	Th	F	S
Kea	8	17	23	16	17	18	125
Cole	14	26	34	22	47	22	45
Justin	7	12	11	23	13	23	30
Ling	52	36	41	31	31	37	59

- a. Kea b. Cole
- c. Justin d. Ling

45. Robin kept a log of the number of hours she slept each night. What is the interquartile range for the data set?

Day	Hours Slept
Sunday	10
Monday	8
Tuesday	7
Wednesday	8.5
Thursday	9
Friday	11
Saturday	9

- a. 2 b. 8
- c. 9 d. 10

46. What is the mean absolute deviation for the set of 100 meter dash times for the girls on the track team?

Team Member	100-Meter Dash Time (s)
Wendy	13.5
Jane	16.7
Hannah	15.9
Annie	17.8
Grace	12.4
Sophia	14.9

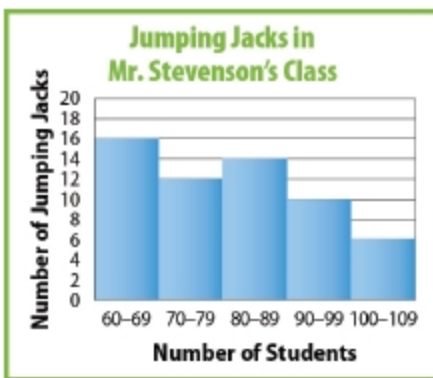
- a. 1.0 second b. 1.6 seconds
- c. 5.4 seconds d. 15.2 seconds

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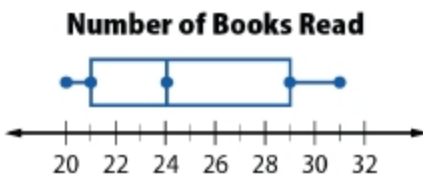
47. Miranda made a table of the number of hours her friends spend watching television each week. Which statement is true about the data set?

10	5	8	2	6	11
3	4	9	10	1	7

- a. The interquartile range is greater than the range.
 - b. The range is 4 more than the interquartile range.
 - c. The range is 6 more than the interquartile range.
 - d. The range is 8 more than the interquartile range.
48. Mr. Stevenson’s gym class made a table of the number of jumping jacks each student completed in 60 seconds. What percent of the students completed more than 89 jumping jacks? Round to the nearest percent.



- a. 16%
 - b. 28%
 - c. 60%
 - d. 72%
49. What is the interquartile range of the data set below?



- a. 8
 - b. 11
 - c. 24
 - d. 29
50. Avery is keeping track of her spelling quiz scores throughout the year. Which type of graph should she use to compare each score?
- a. frequency table
 - b. line graph
 - c. histogram
 - d. bar graph