

Answers:

1. **C**
2. **D**
3. **B**
4. **B**
5. **C**
6. **B**
7. **B**
8. **D**
9. **D**
10. **C**
11. **B**
12. **C**
13. **B**
14. **D**
15. **C**
16. **A**
17. **B**
18. **E**
19. **C**
20. **D**
21. **B**
22. **A**
23. **C**

24. **D**
25. **B**
26. **A**
27. **C**
28. **C**
29. **B**
30. **C**

ELEMENTARY –FLORIDA ROAD TRIP ANSWERS and SOLUTIONS**Solutions**

1. Karen brought $1 - \frac{1}{3} = \frac{2}{3}$ of a pie and Claire brought 1 pie. Adding these together $\frac{2}{3} + 1 = \frac{5}{3} = 1 \frac{2}{3}$ pies, which is **C**.
2. A dozen donuts are 12 donuts. $\frac{1}{3}$ of 12 is 4, so there are $12 - 4 = 8$ donuts left. $\frac{1}{4}$ of 8 is 2, so there are $8 - 2 = 6$ donuts left in the box for delivery. **D**
3. 100 times 0.07 is 7, so the first statement is false. 56×45 is 2520 so the second statement is false. 3×3 is greater than 7, so the third statement is true. Thus only one statement is true. **B**
4. If $\frac{2}{3}$ of B is 6. Therefore B is 9. $\frac{1}{2}$ of 9 is $4 \frac{1}{2}$. **B**
5. $\text{speed} = \frac{\text{distance}}{\text{time}}$ so the speed of the rocket is equal to 12636 miles divided by 5.4. This is equal to 2340. **C**
6. In order to have $3x$ and $13x$ be two-digit numbers, x has to be greater than 3 and less than 8. Thus the only possibilities for x are 4,5,6, and 7. The only number that satisfies the condition the third digit is one more than the fourth digit is 5 ($13x = 65$). Thus the year St. Augustine was founded in is $3(5)=15$, $13(5)= 65$, 1565. **B**
7. The first five prime numbers (numbers with exactly 2 divisors) are 2,3,5,7,11. To find the average, add all the numbers and divide the sum by the total amount of numbers. So, $2+3+5+7+11 = 28$. Dividing this by 5 we get 5.6. **B**
8. There are three feet in a yard, and 1760 yards in a mile. So there are 5280 feet in a mile. Kaitlyn went 640 miles which is a distance of $640 \times 5280 = 3379200$ feet. **D**
9. New sides are 15. $15 \times 15 \times 15 = 3375$ ml which is 3375 ml. **D**
10. Let the number of alligators be A and let the number of humans be B. $A + B = 27$, because each human and alligator has one head. $4A + 2B = 82$ because each alligator has 4 legs, and each human has 2 legs. Dividing the second equation by 2 we get $2A + B = 41$. Subtracting the first equation from this we get $2A + B - A - B = 41 - 27$, so $A = 14$. Students can achieve this answer with trial and error. **C**
11. There are 1000 kilograms in a metric ton. 3748 divided by 1000 is 3.748. **B**
12. The probability that a kid wearing a hat is chosen is $\frac{9}{243} = \frac{1}{27}$. **C**
13. The area of a rectangle is length times width. So, the area is $23 \times 17 = 391$. Areas are always represented as units² (volumes are units³, and lengths are units). **B**
14. The shark scares away 24 out of 30 fish green , 5 out of 60 yellow fish, 12 out of 45 red fish, and 15 out of 20 blue fish. This leaves $6+55+33+5=99$ fish left. **D**

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15. The picture is 3×5 so the mat would be 5×7 . However each mat has a rectangular cut out for the 3×5 picture so it has $35 - 15 = 20 \text{ in}^2$ per mat and there are 174 pictures so $20 \times 174 = 3480 \text{ in}^2$ total. **C**

16. Alisha is 5×4 sets of 3 min. = 20 fish. Brenda is 6 fish in 3 sets of 4 minutes = 18. David 12 in 8 minutes or 6 in 4 minutes or 18 in 12 minutes. Chi-chi 7 fish \times 2 sets of 6 minutes for 14 fish. **A**

17. $265/53 =$ the price of one dark chocolate bar = \$5
 $351/117 =$ the price of one milk chocolate bar = \$3
The answer is \$8 **B**

18. Here, we use a divisibility rule. If a number is divisible by 3, then its digits must add up to a number divisible by 3. None of these answers make the rule true. **E**

19. The ratio of Mickey to Minnie pins is 6:13. This means that for every 6 mickey pins there are 13 Minnie pins. So if there are $6x$ Mickey pins, there are $13x$ Minnie pins. We know that the total number of pins ($6x + 13x$) is 133. So $6x + 13x = 19x = 133$. Solving this we get $x = 7$. Thus Mia has $7(13) = 91$ Minnie pins. **C**

20. David goes up 20 miles to the point (4,37). He then goes east 7 miles to the point (11,37). Then he goes west 12 miles to the point (-1,37). He then goes south 20 miles to the point (-1, 17). This point is distance of 5 miles from his starting point, and is on a line parallel to the x-axis. The total distance David traveled with the detour is $20 + 7 + 12 + 20 = 59$. So the difference between the distance traveled with the detour and the distance in a straight line is $59 - 5 = 54$. **D**

21. The first scoop of ice cream costs \$3.50, and each of the two additional scoop is \$1.50. The three toppings are each \$0.15. Adding this together we get $\$3.50 + 2(\$1.50) + 3(\$0.15) = \6.95 . **B**

22. Jack needs to get two *different* scoops of ice-cream, and there are $5 \times 4 = 20$ ways to do this. He also wants to get a topping and there are 15 different toppings, so we can represent this with $15 \times 20 = 300$. **A**

23. Jack pay $\$3.50 + 1.50$ for total of \$5. His friend pay $\$3.50 + \$1.50 \times 4 + 0.15 \times 15 = 11.75$. for a difference of \$6.75 **C**

24. 111×111 is 12321 **D**

25. The area of the shaded region is $(2 \times 10) - (1 \times 5) = 15$. **B**

26. If Jay did not get last, that means he either got 1st, 2nd, or 3rd. If Jack was in front of Jill, that means he can be 1st, 2nd, or 3rd, but we know that Jack is in a position that is a prime number, which means he is either 2nd or 3rd. Jake is the only one with an even number of vowels in his name, which means that he is either 2nd, 3rd, or 4th. Working out

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the different combinations, we see that the only possible order is Jay, Jake, Jack, and Jill. Thus, the person who is first is Jay. **A**

27. There is $\frac{2}{3}$ of the pizza left after the first hour. So, $\frac{1}{2}$ of $\frac{2}{3}$ is $\frac{1}{3}$. **C**

28. The sum of the angles is 180° and two of the angles measure 50° , so the other angle has a measure of $180-50-50 = 80^\circ$. **C**

29. Jake can go 30 miles in one hour or 60 minutes, and can go 10 miles in $(\frac{60}{3}) = 20$ minutes. **B**

30. $16(0.75)+16(0.50)+4+4(5)+12+2(8)= \72.00 . By adding the product of the price and quantity of all of the items, we can determine the total cost of the party. **C**