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| **Math 7 Unit 3 CDA Review**  **Solve each problem. Show your work at the bottom or on another sheet of paper.** |
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| **1.** | | Which expression is equivalent to | |
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|  | | /files/assess_files/2d1c98da-3a72-45f1-879a-9d27f556898e/I373571_1.png | |
|  | | |  |  |  |  | | --- | --- | --- | --- | | **A.** | –2*x* – 1 | **C.** | –10*x* – 1 | | |
|  | | |  |  |  |  | | --- | --- | --- | --- | | **B.** | –2*x* + 17 | **D.** | –10*x* + 17 | | |
| **2.** | Which expression is equivalent to –2*m* + 4? | |
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|  | |  |  |  |  | | --- | --- | --- | --- | | **A.** | –2(*m* + 4) | **C.** | 2(*m* + 2) | | |
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|  | |  |  |  |  | | --- | --- | --- | --- | | **B.** | –2(*m* – 4) | **D.** | 2(–*m* + 2) | |  |  |  |  | | |
| **3.** | Which is the simplest form of  /files/assess_files/825b2092-fabd-4882-9719-373410020856/I361206_2.png ? | |
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|  | |  |  |  |  | | --- | --- | --- | --- | | **A.** | –10*m* + 2 | **C.** | –8*m* + 2 | | |
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|  | |  |  |  |  | | --- | --- | --- | --- | | **B.** | –10*m* – 7 | **D.** | –8*m* – 7 | | |
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| **4.** | |  |  | | --- | --- | | **Store** | **Sale** | | 1 | 1/4 off | | 2 | $5 off coupon | | 3 | 20% |   Kevin wants to buy a book that costs $16. Three stores are having a sale on this book. The table below shows the different sales at each store. If Kevin wants to save the most money, how much should he spend on the book? | |
|  | |  |  |  |  | | --- | --- | --- | --- | | **A.** | $12.80 | **C.** | $12.00 | | |
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|  | |  |  |  |  | | --- | --- | --- | --- | | **B.** | $6.00 | **D.** | $11.00 | | |
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|  | 5.) Carla had $40 to spend at the mall. She spent 20% of her money on lunch and /files/assess_files/153a7204-1cc6-4d17-90a3-92cbfe3b6e5c/I373534_1.png of her remaining money on a necklace. What fraction of the money Carla brought to the mall does she have left? | |
|  | |  |  | | --- | --- | | **A.** | /files/assess_files/ad3cdae2-aa1b-47cd-9bf6-c71076283a20/I373534_2.png | | |
|  |  | |
|  | |  |  | | --- | --- | | **B.** | /files/assess_files/526f9aa1-0a0c-43c6-b201-2bcb9aeacc76/I373534_3.png | | |
|  |  | |
|  | |  |  | | --- | --- | | **C.** | /files/assess_files/f23584ba-1bfb-4340-af82-ed288de66fe8/I373534_4.png | | |
|  |  | |
|  | |  |  | | --- | --- | | **D.** | /files/assess_files/e664faae-87fc-4664-84d0-7d0b0a5b96eb/I373534_5.png | | |
|  | 6.) Alexis had $30 to spend at an amusement park.   * She spent 20% of her money on games. * She spent /files/assess_files/cf103fd7-5e1b-4806-99b8-499ac8eb73bb/I360917_2.png of her money on food. * She spent $6.00 on a stuffed animal.   How much money did Alexis have left? | |
|  | |  |  |  |  | | --- | --- | --- | --- | | **A.** | $0.50 | **C.** | $3.00 | | |
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|  | |  |  |  |  | | --- | --- | --- | --- | | **B.** | $6.00 | **D.** | $9.00 | | |
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| **7.** | | There are 525 students at a middle school that had a chance to go on a field trip. Only 40% of the students signed up to go on the field trip. Of those who signed up, /files/assess_files/07d74427-2479-4b9e-a778-97ca8c3cc080/I361155_3.png will pack their lunch. How many students who signed up to go on the field trip will ***not*** pack their lunch? |
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|  | | |  |  |  |  | | --- | --- | --- | --- | | **A.** | 63 students | **C.** | 210 students | |
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|  | | |  |  |  |  | | --- | --- | --- | --- | | **B.** | 70 students | **D.** | 140 students | |
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| **8.** | | A snack recipe for a party requires:   * /files/assess_files/917a78cc-dab4-4b1d-b551-16fb0240934b/I361120_13.png cups of pretzels * /files/assess_files/917a78cc-dab4-4b1d-b551-16fb0240934b/I361120_14.png cups of peanuts * /files/assess_files/917a78cc-dab4-4b1d-b551-16fb0240934b/I361120_15.png cups of chocolate chips * /files/assess_files/917a78cc-dab4-4b1d-b551-16fb0240934b/I361120_16.png cups of dried apricots * /files/assess_files/917a78cc-dab4-4b1d-b551-16fb0240934b/I361120_17.png cups of coconut   A serving size for this recipe is ¾ cup. What is the maximum number of servings this recipe makes? |
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|  | | |  |  |  |  | | --- | --- | --- | --- | | **A.** | 17 | **C.** | 23 | |
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|  | | |  |  |  |  | | --- | --- | --- | --- | | **B.** | 22 | **D.** | 26 | |
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| **9.** | | At a used bookstore, Carlos bought 2 paperback books for $1.75 each and some children’s books for $0.75 each, including tax. He spent a total of $5.75. How many children’s books did Carlos buy? |
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|  | | |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **A.** | 3 | **B.** | 4 | **C.** | 5 | **D.** | 7 | |

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| **10.** | | | | What is the value of *x* in the equation /files/assess_files/980f3a59-7ede-4508-9692-aa74744913e2/I360968_16.png ? |
|  | | | |
|  | | | | |  |  | | --- | --- | | **A.** | /files/assess_files/9fc8c089-806f-4990-a4e1-4f18ac99f845/I360968_17.png | |
|  | | | |  |
|  | | | | |  |  | | --- | --- | | **B.** | /files/assess_files/75702504-58d4-40c0-b741-b4565ecdf116/I360968_18.png | |
|  | | | |  |
|  | | | | |  |  | | --- | --- | | **C.** | /files/assess_files/d4bb8d4b-c44f-479e-b017-ae8e74897cdf/I360968_19.png | |
|  | | | |  |
|  | | | | |  |  | | --- | --- | | **D.** | /files/assess_files/2e046954-df7f-41ad-8479-904df263ccc7/I360968_20.png | |
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| **11.** | | | | Maria paid $7.50 to send a package to her grandmother. A shipping company charged $1.50, plus $0.25 per ounce to send Maria’s package. How much did Maria’s package weigh? |
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|  | | | | |  |  |  |  | | --- | --- | --- | --- | | **A.** | 96 ounces | **C.** | 6 ounces | |
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|  | | | | |  |  |  |  | | --- | --- | --- | --- | | **B.** | 20 ounces | **D.** | 24 ounces | |
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| **12.** | | | | The average body temperature of an adult human is about 99°F. The formula to convert degrees Celsius (*C*) to degrees Fahrenheit (*F*) is *F* = 1.8*C* + 32.  ***Approximately*** what is the average body temperature of an adult human in degrees Celsius? |
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|  | | | | |  |  |  |  | | --- | --- | --- | --- | | **A.** | 23°C | **C.** | 67°C | |
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|  | | | | |  |  |  |  | | --- | --- | --- | --- | | **B.** | 37°C | **D.** | 87°C | |
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|  | | | | 13. The formula for the perimeter of a rectangle is *P* = 2*L* + 2*W*, where *L* is the length and *W* is the width of the rectangle. What is the length of a rectangle with a perimeter of 16 cm and a width of 4 cm? |
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|  | | | | |  |  |  |  | | --- | --- | --- | --- | | **A.** | 2 cm | **C.** | 4 cm | |
|  | | | |  |
|  | | | | |  |  |  |  | | --- | --- | --- | --- | | **B.** | 10 cm | **D.** | 8 cm | |
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| **14.** | | | | Ten containers, each weighing the same amount, were placed on a 30-pound platform. The platform and containers were lifted onto a train car. The maximum weight that can be lifted by the cable is 700 pounds. Which inequality represents the possible weight of one container, *x*, on the platform? |
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|  | | | | |  |  |  |  | | --- | --- | --- | --- | | **A.** | *x* ≤ 670 | **C.** | *x* ≤ 67 | |
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| **15.** | | | | Sarah has quiz scores of 81, 87, 92, and 95. What grade must Sarah earn on her next quiz, *x*, to have an average score of at least 90? |
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|  | | | | |  |  |  |  | | --- | --- | --- | --- | | **A.** | *x* ≤ 90 | **C.** | *x* ≤ 95 | |
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|  | | | | |  |  |  |  | | --- | --- | --- | --- | | **B.** | *x* ≥ 90 | **D.** | *x* ≥ 95 | |
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| **16.** | | | | What is the solution to the inequality  –5(*x* + 1) ≤ 15? |
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|  | | | | |  |  |  |  | | --- | --- | --- | --- | | **A.** | *x* ≥ –2 | **C.** | *x* ≥ –4 | |
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|  | | | | |  |  |  |  | | --- | --- | --- | --- | | **B.** | *x* ≤ –2 | **D.** | *x* ≤ –4 | |
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|  | | | | 17. Which graph shows the solution to  –3*x* – 5 ≤ –20? |
|  | | | |  |
|  | | | | |  |  | | --- | --- | | **A.** | /files/assess_files/1452934d-476b-437b-a8c8-40b4b812aca1/I361035_5.png | |
| **.** | | |  | |
|  | | | |  |  | | --- | --- | | **B.** | /files/assess_files/9a4f7216-7d12-4b98-8135-1fb7e29062f2/I361035_6.png | | |
|  | | |  | |
|  | | | |  |  | | --- | --- | | **C.** | /files/assess_files/69cde820-98eb-4206-a5eb-75c2109d11f7/I361035_7.png | | |
|  | | |  | |
|  | | | |  |  | | --- | --- | | **D.** | /files/assess_files/0c7fe2a9-1ff7-4d72-ad00-812d6e4b3c20/I361035_8.png | | |
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|  | | | 18.) Libby earns $400 per month plus 20% of her total sales, *x*. Which inequality represents her total sales each month if she wants to earn at least $2,500 per month? | |
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|  | | | |  |  | | --- | --- | | **A.** | *x* ≤ 10,500 | | |
|  |  | | | |
|  | |  |  | | --- | --- | | **B.** | *x* ≥ 10,500 | | | | |
|  |  | | | |
|  | |  |  | | --- | --- | | **C.** | *x* ≤ 1,700 | | | | |
|  |  | | | |
|  | |  |  | | --- | --- | | **D.** | *x* ≥ 1,700 | |  |  | | | | |
|  | 19.) Mr. Tucker buys a half-gallon of milk for $2.25 and a half-gallon of orange juice for $2.00. He also buys grapes, which are $1.49 per pound. Mr. Tucker has $15. Not including tax, what is the greatest whole number of pounds of grapes that Mr. Tucker can purchase? | | | |
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|  | |  |  |  |  | | --- | --- | --- | --- | | **A.** | 6 pounds | **C.** | 8 pounds | | | | |
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|  | | |  |  |  |  | | --- | --- | --- | --- | | **B.** | 7 pounds | **D.** | 10 pounds | | | |
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| **20.** | Juan bought 5.5 lbs of coffee for $7.89 per lb. Sales tax is 6%. What was the total amount Juan paid for the coffee? |
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|  | |  |  |  |  | | --- | --- | --- | --- | | **A.** | $2.60 | **C.** | $43.40 | |
|  |  |
|  | |  |  |  |  | | --- | --- | --- | --- | | **B.** | $46.00 | **D.** | $45.99 | |
|  |  |
|  | |  |  | | --- | --- | | **Activity** | **Number of Students** | | reading | 25 | | homework | 36 | | socializing | 14 | | other | 7 |   21.) Jasmine surveyed a group of students about how they spend their time in homeroom. The results are in the table below. If there are 600 students in the school, about how many students read during homeroom? |
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|  | |  |  |  |  | | --- | --- | --- | --- | | **A.** | 82 | **C.** | 240 | |
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|  | |  |  |  |  | | --- | --- | --- | --- | | **B.** | 183 | **D.** | 518 | |

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| **22.** | In August, the price of gas was $4.36. In September, the price of gas was $3.90. What was the ***approximate*** percent of decrease in the price of gas from August to September? |
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|  | |  |  | | --- | --- | | **A.** | 10% decrease | |
|  |  |
|  | |  |  | | --- | --- | | **B.** | 11% decrease | |
|  |  |
|  | |  |  | | --- | --- | | **C.** | 12% decrease | |
|  |  |
|  | |  |  | | --- | --- | | **D.** | 36% decrease | |
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| **23.** | Kim is making fruit salad. The recipe requires:   * /files/assess_files/a775fa5c-3e58-4e83-a7b2-9897066e94e9/I361079_10.png cup blueberries * /files/assess_files/a775fa5c-3e58-4e83-a7b2-9897066e94e9/I361079_11.png cups strawberries * /files/assess_files/a775fa5c-3e58-4e83-a7b2-9897066e94e9/I361079_12.png cups grapes * /files/assess_files/a775fa5c-3e58-4e83-a7b2-9897066e94e9/I361079_13.png cups peaches.   How many /files/assess_files/a775fa5c-3e58-4e83-a7b2-9897066e94e9/I361079_14.png-cup servings of fruit salad can be made? |
|  |
|  | |  |  |  |  | | --- | --- | --- | --- | | **A.** | /files/assess_files/93135129-cb05-4940-bab3-3599a302a443/I361079_15.png servings | **C.** | /files/assess_files/6ec772aa-b411-4fa2-a332-817340a066b6/I361079_17.png servings | |
|  |  |
|  | |  |  |  |  | | --- | --- | --- | --- | | **B.** | /files/assess_files/4f7b9ef6-c87c-43ae-9745-cc4cc298cfcb/I361079_16.png servings | **D.** | /files/assess_files/afafbfb7-9c62-4f5b-8065-ead47932764e/I361079_18.png servings | |

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| **24.** | Ralph can drive /files/assess_files/d236e0fc-4ad6-42de-a92b-6446253fad99/I361104_7.png of the way to work on /files/assess_files/d236e0fc-4ad6-42de-a92b-6446253fad99/I361104_8.png of a tank of gas. At this rate, how much gas does Ralph use to get to work and back? |
|  |
|  | |  |  |  |  | | --- | --- | --- | --- | | **A.** | /files/assess_files/315a5302-7a6f-4e1a-a104-9a8ea4394385/I361104_9.png tank of gas | **c.** | /files/assess_files/545d2189-7fdf-4ddb-b8bc-2680bb1c9249/I361104_11.png  tank of gas | |
|  |  |
|  | |  |  |  |  | | --- | --- | --- | --- | | **B.** | /files/assess_files/3a6bf52a-d27a-4c7c-b7f4-4a2df9cc7655/I361104_10.png  tank of gas | **D.** | /files/assess_files/d41060f2-d4f6-4577-8f3a-bf35ed68c5e8/I361104_12.png tank of gas | |
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