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| **online No 4 - Math 1 [2723045]** | |
| Student |  |
| Class |  |
| Date |  |

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| **1.** | Michael is 12 years older than Lynn. The sum of Lynn’s and Michael’s ages is 84. How old is Michael? |
|  |
|  | |  |  | | --- | --- | | **A.** | 36 | |
|  |  |
|  | |  |  | | --- | --- | | **B.** | 38 | |
|  |  |
|  | |  |  | | --- | --- | | **C.** | 42 | |
|  |  |
|  | |  |  | | --- | --- | | **D.** | 48 | |
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| **2.** | **Which expression is equivalent to** /files/assess_files/4bd3d372-5d81-4100-8965-3fc872f7d505/b67424f6-ee87-44a7-85de-c41cd99954dc.png**?** |
|  |
|  | |  |  | | --- | --- | | **A.** | /files/assess_files/d096c232-1e66-4ff9-abd6-44f8ce400168/294234f0-0769-4a26-88cd-6eeb2944ff80.png | |
|  |  |
|  | |  |  | | --- | --- | | **B.** | /files/assess_files/f9a69baf-634b-46c0-ad22-fd8ec2307d82/53c8b5b1-3c63-4f77-9599-3ad99387d414.png | |
|  |  |
|  | |  |  | | --- | --- | | **C.** | /files/assess_files/574ba2b2-60f7-43c0-9806-65333592fd4e/559b12ce-9db2-4b45-aec1-2ae8cd68eda3.png | |
|  |  |
|  | |  |  | | --- | --- | | **D.** | /files/assess_files/34b02554-1bc5-4357-a8bd-82dde39b1bb0/ae63bd83-3ecf-482b-a2d2-e33851e7ea46.png | |
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| **3.** | **Given the equation** /files/assess_files/fb72e053-d9e2-4143-ac12-9203b64f2408/3882edee-8056-4770-ad2d-dfe3a4b51d53.png**, what are the *x*-intercept and *y*-intercept of the graph?** |
|  |
|  | |  |  | | --- | --- | | **A.** | *x*-intercept = /files/assess_files/03753b4e-9b5c-4e06-a6b8-87990b1b99cf/fbdc375d-0c6a-4429-9ff6-407dde6a1727.png; *y*-intercept = /files/assess_files/03753b4e-9b5c-4e06-a6b8-87990b1b99cf/3e591793-78e1-478d-a794-2f5b129145b8.png | |
|  |  |
|  | |  |  | | --- | --- | | **B.** | *x*-intercept /files/assess_files/5b99d7ff-918b-4af5-bfc0-3f0eb520980b/864a76e2-a5b9-47de-92eb-5b3d99aed492.png; *y*-intercept = /files/assess_files/5b99d7ff-918b-4af5-bfc0-3f0eb520980b/e1001179-815b-4f28-ac84-8814a65ca3d1.png | |
|  |  |
|  | |  |  | | --- | --- | | **C.** | *x*-intercept = /files/assess_files/ce26b3b6-3fe4-490c-9533-dec1ca3566ba/bbba7787-d314-4d9a-95bd-028f7fb84644.png; *y*-intercept = /files/assess_files/ce26b3b6-3fe4-490c-9533-dec1ca3566ba/277bd1cf-01ab-48ed-936d-1fc42b342604.png | |
|  |  |
|  | |  |  | | --- | --- | | **D.** | *x*-intercept = /files/assess_files/3fc67f98-ba08-4fa1-9ff2-2775bffd01d1/dab011bc-3dfa-4c97-a73f-bd55178fb333.png; *y*-intercept = /files/assess_files/3fc67f98-ba08-4fa1-9ff2-2775bffd01d1/be2b8176-009b-46d5-bd44-b7e66c536195.png | |
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| **4.** | **In the inequality below, let *x* represent the number of pies a bakery makes each day.**  /files/assess_files/8498d983-43cd-4cd1-a821-ffb8a8e34db1/d26d003f-88a1-49fa-8c7c-446772339177.png  **Which of the following phrases MOST accurately describes the number of pies the bakery makes each day?** |
|  |
|  | |  |  | | --- | --- | | **A.** | more than 94 pies | |
|  |  |
|  | |  |  | | --- | --- | | **B.** | exactly 94 pies | |
|  |  |
|  | |  |  | | --- | --- | | **C.** | at most 94 pies | |
|  |  |
|  | |  |  | | --- | --- | | **D.** | less than 94 pies | |
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| **5.** | **A class working on sequences starts with a box of 128 paper clips. The first person takes out half of them, or 64 paper clips. Each person after that takes out half of the remaining paper clips. How many paper clips are in the box as it is passed to the 6th person?** |
|  |
|  | |  |  | | --- | --- | | **A.** | 2 | |
|  |  |
|  | |  |  | | --- | --- | | **B.** | 4 | |
|  |  |
|  | |  |  | | --- | --- | | **C.** | 8 | |
|  |  |
|  | |  |  | | --- | --- | | **D.** | 16 | |
|  |  |
|  |  |

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| **6.** | **Which point on the *xy*-coordinate plane shown below lies on the graph of the equation** /files/assess_files/84d7ab77-3170-4edb-bcdc-cba518a9ab5d/fc99e2ce-c6ec-4430-a551-1a3100005062.png  /files/assess_files/84d7ab77-3170-4edb-bcdc-cba518a9ab5d/image/165795.jpg |
|  |
|  | |  |  | | --- | --- | | **A.** | *J* | |
|  |  |
|  | |  |  | | --- | --- | | **B.** | *K* | |
|  |  |
|  | |  |  | | --- | --- | | **C.** | *L* | |
|  |  |
|  | |  |  | | --- | --- | | **D.** | *M* | |
|  |  |
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| **7.** | What is the solution to the equation 3(*x* – 4) + 7 = 5*x*? |
|  |
|  | |  |  | | --- | --- | | **A.** | −  19  2 | |
|  |  |
|  | |  |  | | --- | --- | | **B.** | −  5  2 | |
|  |  |
|  | |  |  | | --- | --- | | **C.** | 3  2 | |
|  |  |
|  | |  |  | | --- | --- | | **D.** | 9  2 | |
|  |  |
|  |  |
| **8.** | The table below shows values for two functions,  *f*(*x*) and *g*(*x*).   |  |  |  | | --- | --- | --- | | ***x*** | ***f*(*x*)** | ***g*(*x*)** | | –3 | –5 | 16 | | –2 | –2 | 8 | | –1 | 1 | 4 | | 0 | 4 | 2 | | 1 | 7 | 1 | | 2 | 10 | 0.5 | | 3 | 13 | 0.25 |   For what value of *x* does *f*(*x*) ***approximately*** equal *g*(*x*)? |
|  |
|  | |  |  | | --- | --- | | **A.** | 2.7 | |
|  |  |
|  | |  |  | | --- | --- | | **B.** | 0.6 | |
|  |  |
|  | |  |  | | --- | --- | | **C.** | –0.2 | |
|  |  |
|  | |  |  | | --- | --- | | **D.** | –0.4 | |
|  |  |
|  |  |
| **9.** | The cost to rent a truck for a day is $42.95, plus $0.18 per mile. How many miles did George drive the truck if he paid $54.11 to rent the truck? |
|  |
|  | |  |  | | --- | --- | | **A.** | 54 miles | |
|  |  |
|  | |  |  | | --- | --- | | **B.** | 62 miles | |
|  |  |
|  | |  |  | | --- | --- | | **C.** | 97 miles | |
|  |  |
|  | |  |  | | --- | --- | | **D.** | 239 miles | |
|  |  |
|  |  |
| **10.** | **If** /files/assess_files/dffda2ad-f4a8-4488-853b-424b5508d412/9c7e1bad-82ba-47f6-91b6-c77f02a4cc45.png |
|  |
|  | |  |  | | --- | --- | | **A.** | 3 | |
|  |  |
|  | |  |  | | --- | --- | | **B.** | 4 | |
|  |  |
|  | |  |  | | --- | --- | | **C.** | 6 | |
|  |  |
|  | |  |  | | --- | --- | | **D.** | 8 | |
|  |  |
|  |  |
| **11.** | **A sequence is defined recursively below.**  /files/assess_files/34fc800c-07fb-49ce-8dcd-4976f4b84013/7b5ec97a-1982-48b2-9da4-e5617766f0b3.png  **What is the 5th term of the sequence?** |
|  |
|  | |  |  | | --- | --- | | **A.** | /files/assess_files/8c2bdb29-0c65-4d56-950c-8bc4ed3bfc7b/19a0dd80-7857-4f91-9687-f9370a82190d.png | |
|  |  |
|  | |  |  | | --- | --- | | **B.** | /files/assess_files/80d98dde-ccf8-4767-8dd8-aafa18afb24a/44f57600-72db-4e3f-ab43-68e0b60954b5.png | |
|  |  |
|  | |  |  | | --- | --- | | **C.** | 54 | |
|  |  |
|  | |  |  | | --- | --- | | **D.** | 162 | |
|  |  |
|  |  |
| **12.** | If /files/assess_files/15174b9d-4d12-4375-8764-241ec0a30eec/images/71581ea1fe00b747a7ab9bb2ad3d8ba1.png and /files/assess_files/15174b9d-4d12-4375-8764-241ec0a30eec/images/9173e34b5537701a24189075c84d2150.png which equation represents the explicit formula for the sequence? |
|  |
|  | |  |  | | --- | --- | | **A.** | /files/assess_files/40d51114-b36b-4b04-ba35-a1160f1535be/images/350b1a9639fc9a401365ce0d257519a2.png | |
|  |  |
|  | |  |  | | --- | --- | | **B.** | /files/assess_files/bb9dc0d4-63af-4ac2-ba4c-30e9a8c8cbff/images/73b76e48e612984f006e1fa77b1ab06a.png | |
|  |  |
|  | |  |  | | --- | --- | | **C.** | /files/assess_files/a6a132b1-acce-4f28-a40c-ea52bddcd753/images/a8a7873ed880c32710c4ccb0e976271b.png | |
|  |  |
|  | |  |  | | --- | --- | | **D.** | /files/assess_files/9444642b-b54f-4776-87d3-2af427080c00/images/007a09a6ae92a8ebb9768b46472ed47b.png | |
|  |  |
|  |  |
| **13.** | The function *f*(*x*) = 9.75*x +* 62 models the amount of money that Hector earned working *x* hours in a week. The function *g*(*x*) = 7.5*x* + 84 models the amount of money that Carl earned working *x* hours in the same week. Which function, *h*(*x*), models the difference in Hector’s and Carl’s earnings? |
|  |
|  | |  |  | | --- | --- | | **A.** | *h*(*x*)= 17.25*x* – 22 | |
|  |  |
|  | |  |  | | --- | --- | | **B.** | *h*(*x*)= 17.25*x* + 146 | |
|  |  |
|  | |  |  | | --- | --- | | **C.** | *h*(*x*)= 2.25*x* – 22 | |
|  |  |
|  | |  |  | | --- | --- | | **D.** | *h*(*x*)= 2.25*x* + 146 | |
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| **14.** | The cost to rent a van can be modeled by the function, *V* = 45 + 0.10*m*, where *V* is the cost to rent the van and *m* is the total number of miles the van is driven. What does the *y*-intercept represent in the context of the problem? |
|  |
|  | |  |  | | --- | --- | | **A.** | the total cost to rent the van | |
|  |  |
|  | |  |  | | --- | --- | | **B.** | the cost per mile to rent the van | |
|  |  |
|  | |  |  | | --- | --- | | **C.** | the total miles the van was driven | |
|  |  |
|  | |  |  | | --- | --- | | **D.** | the initial cost to rent the van | |
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|  |  |

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| **15.** | **An amusement park charges a $20 admission fee and $3 for each ride. Which equation can be used to determine *c*, the total cost of a day at the amusement park, based on *n*, the number of rides?** |
|  |
|  | |  |  | | --- | --- | | **A.** | /files/assess_files/123a2429-4118-4d1b-8841-9b45db1a92fc/1ee4d0b8-2d72-4aff-8407-51e921c75f32.png | |
|  |  |
|  | |  |  | | --- | --- | | **B.** | /files/assess_files/8f09a4b9-7322-4b21-a109-f8575ffb4f4f/725e164d-1cd0-446d-a8a8-017a5e215475.png | |
|  |  |
|  | |  |  | | --- | --- | | **C.** | /files/assess_files/c968cfb8-1b16-4da6-980e-b5b8013a1462/d6649ff4-c06b-41e9-96fb-73641cf0604c.png | |
|  |  |
|  | |  |  | | --- | --- | | **D.** | /files/assess_files/a996b5c2-8a44-4961-b501-619a109ddb54/cf0de5d6-d96f-4f1d-9054-ef9f0807bf0f.png | |
|  |  |
|  |  |
| **16.** | Two types of bacteria are being grown in separate petri dishes.   * Suppose that the amount of the first type of bacteria after *x* hours can be modeled by *f*(*x*) = 4(3)*x* – 1. * Suppose that the amount of the second type of bacteria after *x* hours can be modeled by *h*(*x*) = 4*x* – 1.   Which function represents the total number of bacteria,  *t*(*x*), after *x* hours? |
|  |
|  | |  |  | | --- | --- | | **A.** | *t*(*x*) = 16*x*(3)*x* – 1 – 1 | |
|  |  |
|  | |  |  | | --- | --- | | **B.** | *t*(*x*) = 4(3)5*x* – 1 | |
|  |  |
|  | |  |  | | --- | --- | | **C.** | *t*(*x*) = 4(3)*x* – 1 + 4*x* – 1 | |
|  |  |
|  | |  |  | | --- | --- | | **D.** | *t*(*x*) = 5*x* + 4(3)*x* – 2 | |
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| **17.** | **Look at the equation.**  /files/assess_files/bf9b769f-d377-4d81-8014-358dcfb623da/2ffe0a87-d7e1-42a2-ac15-f4fde6692c40.png  **For which value of *A* will the graph of the equation have an *x*-intercept of** /files/assess_files/bf9b769f-d377-4d81-8014-358dcfb623da/32246dcd-b302-4c56-b848-5d40d8b268e1.png |
|  |
|  | |  |  | | --- | --- | | **A.** | /files/assess_files/00bf75f3-e420-4e03-add6-998a418f65a2/52c06870-17af-40f0-b949-f9bb73cb6c29.png | |
|  |  |
|  | |  |  | | --- | --- | | **B.** | /files/assess_files/8bf563fc-1aba-4ed9-8388-9696978f5c19/8ccb5e29-4d05-4003-9d3a-eddf7b5c6a87.png | |
|  |  |
|  | |  |  | | --- | --- | | **C.** | /files/assess_files/a87b8008-2323-44b4-a8f5-bcce95c59c27/04341410-6b6f-45fb-8f10-be37f3b46e98.png | |
|  |  |
|  | |  |  | | --- | --- | | **D.** | /files/assess_files/65d8c040-a3b0-4df1-80a2-47614e7dbe48/4845861e-524e-442e-9c53-f10c7d3b5e88.png | |
|  |  |
|  |  |