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Tutor Doctor

Math 7: Patterning and Algebra, 10 Questions

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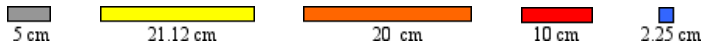
- If Chris (c) is 15 years old and his Dad is $2c + 14$ years old, how old is Chris' dad?
 - ☐ A) 15 years
 - ☐ B) 26 years
 - ☐ C) 29 years
 - ☐ D) 44 years
- The sum of two numbers is 30. One number is 5 times larger than the other. What are the two numbers?
 - ☐ A) 5 and 25
 - ☐ B) 10 and 20
 - ☐ C) 6 and 24
 - ☐ D) 5 and 6

3.

Lee is renovating his bathroom and re-tiling the shower wall. The diagram below shows the pattern that Lee has selected:



If Lee is unable to buy as many red tiles as he needs to create the pattern he has selected, he has created some other pattern options. If Lee wants to keep the new pattern the same length as the original repeating pattern shown above, which pattern below would **not** work?



- ☐ A) Grey – Red – Grey – Blue – Grey – Red – Grey
 - ☐ B) Yellow – Blue – Yellow
 - ☐ C) Orange – Blue – Orange
 - ☐ D) Grey – Grey – Grey – Grey – Blue – Grey – Grey – Grey – Grey
- An expression which shows how many minutes it takes Marianne to do her homework is:
 $3m + 5s =$ time to do her homework
 where m = number of pages of math homework to do
 where s = number of pages of science homework to do
 If Marianne has 4 pages of math homework and 6 pages of science homework, how long will it take her to finish all her homework tonight?
 - ☐ A) 18 minutes
 - ☐ B) 38 minutes
 - ☐ C) 42 minutes
 - ☐ D) 42 hours
 - Michael writes an equation which relates his current age (m) to that of his Uncle Tim (t). The equation Michael wrote is $t = 2m + 5$. In words, the relationship between Michael's age and his Uncle Tim's age is:
 - ☐ A) Michael is five years less than twice Uncle Tim's age
 - ☐ B) Uncle Tim is five years less than twice Michael's age
 - ☐ C) Michael is five years more than twice Uncle Tim's age
 - ☐ D) Uncle Tim is 5 years more than twice Michael's age
 - $x = 5$ is the solution for which equation below?

- ☐ A) $x + 10 = 15$
- ☐ B) $10 - x = 15$
- ☐ C) $x - 7 = 2$
- ☐ D) $42 = 37 - x$

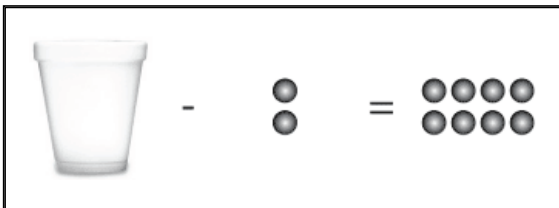
7. A can of pop weighs 355 g and a sandwich weighs 125 g. What is the total mass of the items in Ethan's lunch bag if he fills it with 2 cans of pop and 4 sandwiches?

- ☐ A) 1210 g
- ☐ B) 210 g
- ☐ C) 480 g
- ☐ D) 1670 g

8. The value of the expression $4d - 2$ for $d = 5$ is

- ☐ A) 20
- ☐ B) 18
- ☐ C) 16
- ☐ D) 14

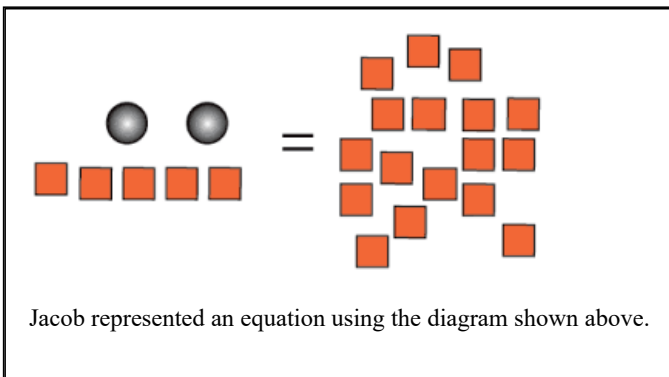
9.



How many counters must be in the cup to make the equation true?

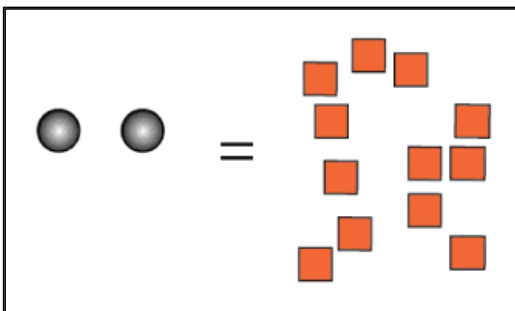
- ☐ A) 6
- ☐ B) 8
- ☐ C) 10
- ☐ D) 12

10.

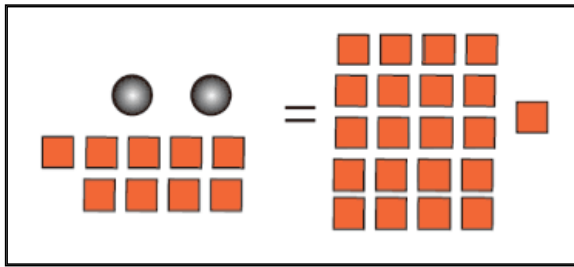


Which of the diagrams below is equivalent to Jacob's original equation?

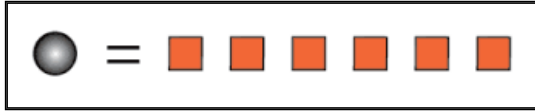
- ☐ A)



- ☐ B)



☐ C)



☐ D) All of the above

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