School/Team Name_____

Sudden Death Test 03

1 **Which algebraic equation best describes the total growth (T) in height of pine trees over a 3-year period, if g equals the rate of growth in centimeters per year?**

A $T = 3g$

B $T = 3 + g$

C $T = \frac{g}{3}$

D $T = \frac{3}{g}$

CSM21694

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2 **If $x - 3 = 6$, what is the value of x?**

A 2

B 3

C 6

D 9

CSM10968

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3 **What is x if $3x = 84$?**

A 20

B 21

C 26

D 28

CSM21693

4 **In the equation $x + y = 4$, what is the value of x if $y = 2$?**

A 2

B 4

C 6

D 8

CSM30458

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5 **A telephone company charges \$0.05 per minute for local calls and \$0.12 per minute for long-distance calls. Which expression gives the total cost in dollars for x minutes of local calls and y minutes of long-distance calls?**

A $0.05x + 0.12y$

B $0.05x - 0.12y$

C $0.17(x + y)$

D $0.17xy$

CSM01299

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6 **The steps Quentin took to evaluate the expression $3m - 3 \div 3$ when $m = 8$ are shown below.**

$3m - 3 \div 3$ when $m = 8$
$3 \times 8 = 24$
$24 - 3 = 21$
$21 \div 3 = 7$

What should Quentin have done differently in order to evaluate the expression?

A divided $(24 - 3)$ by (24×3)

B divided $(24 - 3)$ by $(24 - 3)$

C subtracted $(3 \div 3)$ from 24

D subtracted 3 from $(24 \div 3)$

CSM10804

7 **Marcus spent $3.25 to wash his car. If one quarter operates the car wash for 60 seconds, how long did it take him to wash his car?**

A 10 minutes

B 13 minutes

C 16 minutes

D 32.5 minutes

CSM11180

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8 **A car gets 24 miles per gallon of gasoline (mi/gal). How many gallons of gasoline would the car need to travel 144 miles?**

A 6.5 gallons

B 6 gallons

C 5.5 gallons

D 5 gallons

CSM02086

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9 **Sheila has been given 5 minutes to solve 20 arithmetic problems. What is the minimum rate Sheila can work in order to finish in time?**

A 1 problem per minute

B 2 problems per minute

C 4 problems per minute

D 5 problems per minute

CSM20756

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10 **A water tank will hold 50 gallons. What flow rate, in gallons per second, is required to fill the tank in 20 seconds?**

A 0.4

B 2.5

C 16.7

D 70

CSM21699

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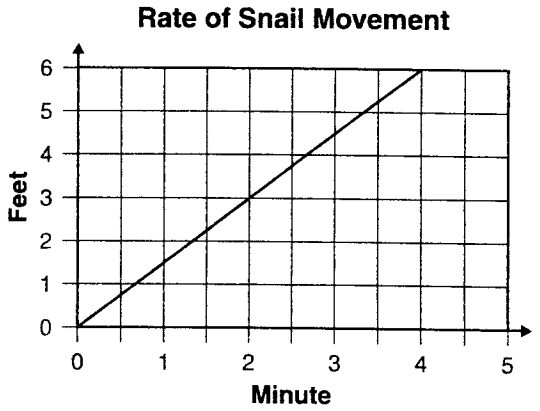
11 **A snail is trying to get to the other side of a park. At what rate is the snail traveling?**



A $\frac{1}{2}$ foot per minute

B 1 foot per minute

C $1\frac{1}{2}$ feet per minute

D 2 feet per minute

CSM21361

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12 **Jerry read a 200-page book in 10 hours. At that rate, how long will it take him to read a 320-page book?**

A 16 hours

B 18 hours

C 24 hours

D 32 hours

CSM01776

Mathematics Reference Sheet
Grade 5

Use the information below, as needed, to answer questions on the Mathematics test.

Square	**Rectangle**	**Triangle**
Area = $s \times s$ Perimeter = $4 \times s$	Area = $l \times w$ Perimeter = $(2 \times l) + (2 \times w)$	Perimeter = $a + b + c$

1 foot = 12 inches
1 yard = 3 feet
1 mile = 5,280 feet

1 cup = 8 ounces (oz)
1 pint = 2 cups
1 quart = 2 pints
1 gallon = 4 quarts

1 kilogram = 1000 grams
1 meter = 100 centimeters
1 centimeter = 10 millimeters
1 kilometer = 1000 meters
1 liter = 1000 milliliters

1 pound (lb) = 16 ounces (oz)

Mathletes Challenge Sudden Death Test 03

Name: KEY

1. A B C D
2. A B C D
3. A B C D
4. A B C D
5. A B C D
6. A B C D
7. A B C D
8. A B C D
9. A B C D
10. A B C D
11. A B C D
12. A B C D