1. Describe the transformation from P to P’.

P (-2, 1)

 P’ (1, -3)

2. $∆$ DEF is shown on the coordinate grid.

Q1: If $∆ $DEF is reflected across the x-axis, then what are the coordinates of D’?

Q2: If $∆ $DEF is reflected across the y-axis, then what are the coordinates of F’?

3. Jared answered 17 of the 20 questions on his Computation Test correctly. What percent of questions did Jared get right?

4. Cameron made 80% of his shots in the basketball game last night. If Cameron made 12 shots, then how many shots did he attempt in the game?

5. Alyssa bought 2½ dozen cookies to share in math class. The class ate 60% of the cookies. How many cookies have been eaten?

6. Ashlynn’s mom bought a new tv from Best Buy. The regular price of the laptop was $580, but it was on sale for 20% off. What was the sale price of the laptop?

Use the table below for questions 7 & 8.

 “Marshmallow Mania” Contestant: Kristen

|  |  |  |
| --- | --- | --- |
| x, # of minutes | MathematicalProcess | y, # of Marshmallows |
| 0 |  | 0 |
| 1 |  | 6 |
| 2 |  | 12 |
| 3 |  | 18 |
|  |  |  |
|  7 |  | ? |
| X | (description) | (equation)?? |

7. Kristen’s data for the “Marshmallow Mania” contest is recorded in the table above. At this rate, how many marshmallows will Kristen eat in 7 minutes?

8. Based on the “Marshmallow Mania” data given in the table above, which equation can be used to find “ y”, the number of marshmallows that John would eat in “x” minutes?

9. Which graph is NOT proportional?

B

A

C

D

10. Solve: $4x + 18 = 90 $

11. Solve: $\frac{x}{6}+ 8 = 20$

12. Solve: $8x - 6 = 98 $

For #13-15, find the expression that can be used to find the value of any term in the sequence below where n represents the terms position in the sequence.

13.

|  |  |
| --- | --- |
| **Position** | **Value of Term** |
| 1 | 6 |
| 2 | 8 |
| 3 | 10 |
|  |  |
| n | ? |

|  |  |
| --- | --- |
| **Position** | **Value of Term** |
| 1 | 2 |
| 2 | 5 |
| 3 | 8 |
|  |  |
| n | ? |

14.

15.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Position** | 1 | 2 | 3 | *n* |
| **Value of Term** | 7 | 11 | 15 |  |

16. Which list shows the first four terms of the sequence $5n+4$, where n is the terms position in the sequence?

A 9, 12, 17, 24

B 9, 14, 18, 23

C 4, 9, 14, 19

D 9, 14, 19, 24

17. Find the first four terms of the sequence $3(n-2)$, where n is the terms position in the sequence?

8. Find the first four terms of the sequence $8- 3n$, where n is the terms position in the sequence?

19. Give the coordinates of each point.

**1**

**1**

**-1**

**-1**

**B**

**C**

**A**

20. Give the coordinates of each point.

**1**

**1**

**-1**

**-1**

**E**

**F**

**D**

21. Give the coordinates of each point.

**1**

**1**

**-1**

**-1**

**G**

**H**

**I**

22. Which situation is represented by the equation $x -18= 22$ ?

A Bob earned $22 mowing yards. After spending $18, Bob had x dollars left. What is x, the amount of money that Bob had left?

B Louis has $18 and Henry has $22. What is x, the difference between their amounts of money?

C Eddie made 18 of his 22 shots in the basketball game last night. What is x, the number of shots that Eddie missed?

D Tom earned some money mowing yards. After spending $18, Tom had $22 left. What is x, the amount of money that Tom earned?

23. Joe currently has an 79 daily average in math. This average is based on 9 grades. Mrs. Carrera decided to drop the lowest daily grade, which is a 58 for Joe. Which equation can be used to find n, Joe’s new daily average in math?

A $n= \frac{(79 - 58)9}{8}$ C $n= \frac{79∙9 - 58}{8}$

B $n= \frac{79 - 58}{2}$ D $n= \frac{79∙8 - 58}{9}$

24 Which situation is represented by the equation $\frac{72+ 95 + x}{3}$ = 85 ?

A Lucy has a 72 and an 95 on her first two math tests. If Lucy makes an 85 on her third math test, then find x, Rita’s math test average.

B Sam has a 72 and an 95 on his first two math tests. Find x, Sam’s math test average for these two tests.

C Linus has 3 tests in math: a 72, an 85, and an 95. Find x, the grade that Linus needs on his fourth test to have an 85 average.

D Justin has a 72 and an 95 on his first two math tests. Find x, the grade that Justin needs to make on his next math test to have a math test average of 85.

25. Rita is r years old. Cecilia’s age, c, is 2 more than triple Rita’s age. Which of the following equations best represents Cecilia’s age?

A $c = 3r-2$ C $c = 2r+3$

B $r = 3c+2$ D $c = 3r +2$

PRE-AP/GT Supplement

|  |  |
| --- | --- |
| **Position** | **Value of Term** |
| 1 | 0.5 |
| 2 | 1.25 |
| 3 | 2.0 |
|  |  |
| n | ? |

26. Find the expression that can be used to find the value of any term in the sequence below where n represents the terms position in the sequence.

A $\frac{n}{2}$ C $\frac{3n}{4}$

B $\frac{3n+1}{4}$ D $\frac{3n-1}{4}$

27. Find the first four terms of the sequence 4(2n – 8).

28. Which situation represents the greatest percent of change?

* 1. An MP3 player regularly priced $100 went on sale for $79.
	2. A teen’s car fund went from $225 to $450 in 1 month with hard work.
	3. Buster, my Basset Hound, went from 48-lbs to 54-lbs in 1 year.
	4. A 5-foot Morning Glory (climbing vine) plant grew to an 11-foot plant

 in 1 year.

29. Determine if each story DOES (YES) or does NOT (NO) match this equation:

 $y = 4x$

A “y” is the perimeter of a square with a side length of ”x”

B “y” is the number of dollars in “x” quarters

C “y” is the area of a table with a length of 4 feet and a width of “x” feet

D “y” is the number of quarters in “x” dollars

E “y” is the perimeter of a rectangle with a length of 4 feet and a width of “x” feet

F “y” is the distance that a person jogs in “x” hours at a rate of 4 mph

G “y” is the area of a triangle with base 4 and height “x”

30. The spiny-tailed iguana can run at a speed of 21 mph. Which equation can be used to find m, the distance in miles that the spiny-tailed iguana can travel in 15 minutes?

A $m=21(0.15)$ C $m=21÷0.25$

B $m=21(0.25)$ D $m=21(15)$