**6.EE.6-6.EE.9 Practice**

**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_**

**6.EE.6**

**(14-1) I can use a variable to write an algebraic expression (or equation) that represents a real-world situation when a specific number is unknown.**

0.5 pts.

1. Logan has 34 model cars. His grandparents give him some more model cars. Now he has 43 model cars. How many model cars did Logan's grandparents give him? Write an algebraic equation to model this relationship.

0.5 pts.

2. Tonya is 5 inches shorter than Kyle. Kyle is x inches tall. Write an algebraic expression to model this.

2 pts.

3. Tasha earns $7 per hour. She earns $175 on her first paycheck. How many hours did Tasha work? Write an algebraic equation to model this relationship.

2 pts.

4. There are 45 pencils in a package. A group of friends want to split the pencils evenly. How many friends can split the pencils so that each friend gets an equal amount? Write an algebraic expression to model this relationship.

3 pts.

5. Louis had 16 books on his shelf. He received more books for his birthday. He now has 21 books on his shelf. Write an algebraic equation to model this relationship.

**(14-2) I can use a variable to write an expression that represents a relationship with a pattern (such as using function tables to write an expression that will represent the output for any input)./(6.EE.9--17-2) I can write an algebraic equation that represents the relationship between the two variables.**

0.5 pts.

6. Write a rule that describes the relationship between the number of minutes that have passed, m, and the number of boats that have arrived, b?

|  |  |
| --- | --- |
| **m** | **b** |
| 5 | 11 |
| 8 | 14 |
| 13 | 19 |
| 18 |  |

0.5 pts.

7. Write a rule that can be used to find the missing values using the function table below that describes the relationship between Penelope's age, p, and Jose's age, j.

|  |  |
| --- | --- |
| **p** | **j** |
| 6 | 2 |
| 8 | 4 |
| 10 | 6 |
| 12 |  |
| 14 |  |

2 pts.

8. Write a rule that best explains the relationship between the dogs, d, and number of legs, l, and can be used to find the missing values.

|  |  |
| --- | --- |
| **d** | **l** |
| 6 | 24 |
| 7 |  |
| 12 | 48 |
| 15 |  |

2 pts.

9. Write a rule that best describes the number of class periods, completed, p, and the assignments left to complete, a, and can be used to find the missing values.

|  |  |
| --- | --- |
| **p** | **a** |
| 35 | 7 |
| 30 | 6 |
| 25 |  |
| 20 | 4 |
| 15 |  |

3 pts.

10. The function table below shows the relationship between the amount of days, d, and the flowers in bloom, f. Write a rule that can be used to find the missing values.

|  |  |
| --- | --- |
| **d** | **f** |
| 7 | 21 |
| 9 | 27 |
|  | 33 |
| 13 |  |

**6.EE.7**

**(15-1) I can solve equations in the form x+p=q (when the values of p and q are given).**

0.5 pts.

11. Find x.

 x+p=q p=28 q=57

0.5 pts.

12. Find x.

 x+p=q p=4 q=72

2 pts.

13. Find x.

 x+p=q p=37 q=22

2 pts.

14. Find x.

 x+p=q p=62 q=184

3 pts.

15. Find x.

 x+p=q p=51 q=33

**(15-2) I can solve equations in the form px=q (when the values of p and q are given).**

0.5 pts.

16. Find x.

 px=q p=8 q=16

0.5 pts.

17. Find x.

 px=q p=9 q=72

2 pts.

18. Find x.

 px=q p=12 q=48

2 pts.

19. Find x.

 px=q p=15 q=75

3 pts.

20. Find x.

 px=q p=6 q=24

**(15-3) I can write and solve algebraic equations that represent real-world problems.**

0.5 pts.

21. Logan has 34 model cars. His grandparents give him some more model cars. Now he has 43 model cars. Write an algebraic equation to model this relationship. How many model cars did Logan's grandparents give him?

0.5 pts.

22. Tonya is 5 inches shorter than Kyle. Kyle is x inches tall. Write an algebraic expression to model this. How tall is Kyle?

2 pts.

23. Tasha earns $7 per hour. She earns $175 on her first paycheck. Write an algebraic equation to model this relationship. How many hours did Tasha work?

2 pts.

24. There are 45 pencils in a package. A group of friends want to split the pencils evenly. Write an algebraic expression to model this relationship. How many friends can split the pencils so that each friend gets an equal amount?

3 pts.

25. Louis had 16 books on his shelf. He received more books for his birthday. He now has 21 books on his shelf. Write an algebraic equation to model this relationship. How many books did Louis receive on his birthday?

**6.EE.8**

**(16-1) I can write a simple inequality that represents a real-world or mathematical problem.**

0.5 pts.

26. Frank spent more than $84. Write an inequality that describes this situation.

0.5 pts.

27. Tobey has fewer than 9 pillows. Write an inequality that describes this situation.

2 pts.

28. Wilden walked no more than 4 miles. Write an inequality that describes this situation.

2 pts.

29. Sidney read at least 41 pages of the book. Write an inequality that describes this situation.

3 pts.

30. Sam is older than 12 years old. Write an inequality that describes this situation.

**(16-2) I can explain what the solution set of an inequality represents.**

0.5 pts.

31. List 5 values that could be included in the solution set of the inequality. z<7

0.5 pts.

32. List 5 values that could be included in the solution set of the inequality. r>-5

2 pts.

33. Identify 5 values that could be included in the solution set of the inequality. x>15

2 pts.

34. Identify 5 values that could be included in the solution set of the inequality. w<-11

3 pts.

35. Identify 5 values that could be included in the solution set of the inequality and explain why they are included in the set. y>-2

**(16-3) I can show the solution set of an inequality by graphing it on a number line.**

0.5 pts.

36. Graph the inequality on a number line. g>12

0.5 pts.

37. Graph the inequality on a number line. p<-1

2 pts.

38. Graph the inequality on a number line. z<8

2 pts.

39. Graph the inequality on a number line. w>-3

3 pts.

40. Graph the inequality on a number line. x>6

**6.EE.9**

**(17-1) I can create a table of two variables that represents a real-world situation (where one changes based on the other).**

0.5 pts.

41. Complete the input/output table that describes the relationship between the number of minutes that have passed, m, and the number of boats that have arrived.

|  |  |
| --- | --- |
| **m** | **b** |
| 5 | 11 |
| 8 | 14 |
| 13 | 19 |
| 18 |  |

0.5 pts.

42. Find the missing values of the function table below that describes the relationship between Penelope's age, p, and Jose's age, j.

|  |  |
| --- | --- |
| **p** | **j** |
| 6 | 2 |
| 8 | 4 |
| 10 | 6 |
| 12 |  |
| 14 |  |

2 pts.

43. Complete the function table below that explains the relationship between the dogs, d, and number of legs, l.

|  |  |
| --- | --- |
| **d** | **l** |
| 6 | 24 |
| 7 |  |
| 12 | 48 |
| 15 |  |

2 pts.

44. The input/output table below shows the relationship between the number of class periods, p, completed and the assignments left to complete, a. Find the missing values.

|  |  |
| --- | --- |
| **p** | **a** |
| 35 | 7 |
| 30 | 6 |
| 25 |  |
| 20 | 4 |
| 15 |  |
| **p** | **a** |

3 pts.

45. The function table below shows the relationship between the amount of days, d, and the flowers in bloom, f. Complete the table by finding the missing values.

|  |  |
| --- | --- |
| **d** | **f** |
| 7 | 21 |
| 9 | 27 |
|  | 33 |
| 13 |  |

**(17-3) I can create a graph by plotting the dependent and independent variables on the correct axis on a coordinate plane.**

0.5 pts.

46. Use the function table from #41 to create a graph on a coordinate plane.

0.5 pts.

47. Use the input/output table from #42 to create a graph on a coordinate plane.

2 pts.

48. Use the function table from #43 to create a graph on a coordinate plane.

2 pts.

49. Use the input/output table from #44 to create a graph on a coordinate plane.

3 pts.

50. Use the function table from #45 to create a graph on a coordinate plane.