

Puzzle 1

6th Grade Math

Name _____

Quest Odds and Ends

Date _____

1. It is a three-digit whole number.
2. Each of its digits is different.
3. Its ones digit is its only even digit.
4. Its tens digit is its smallest digit.
5. Its ones digit is its largest digit.
6. It is less than 500.
7. One of its digits is the sum of its other two digits.
8. The difference between its largest digit and its smallest digit is 3.
9. One of its digits is 4.
10. Its hundreds digit is 3.



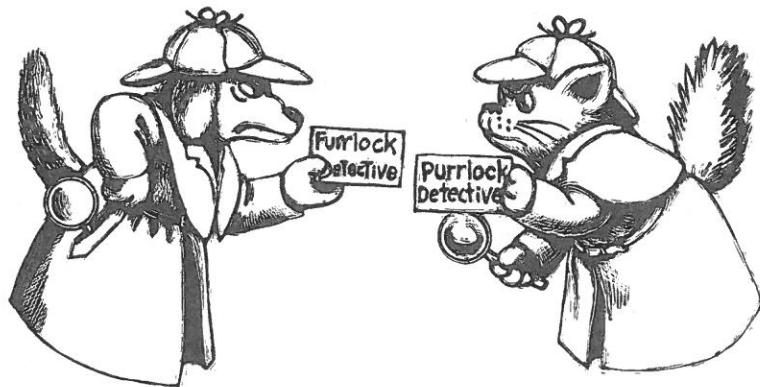
Puzzle 2



1. It is a three-digit whole number.
2. Its hundreds digit is a factor of 3.
3. Its tens digit is a factor of 6.
4. Its ones digit is a factor of 9.
5. All of its digits are different.
6. Its hundreds digit is its smallest digit.
7. All of its digits are odd.
8. Its ones digit is divisible by its hundreds digit.
9. Its hundreds digit is 1.
10. Its tens digit is 3.

Puzzle 3

1. It is a three-digit whole number.
2. It is an even number.
3. It is less than 600.
4. One of its digits is a 7.
5. Its tens digit is the sum of its hundreds digit and its ones digit.
6. The difference between its hundreds digit and its ones digit is 1.
7. It is greater than 300.
8. Its tens digit is its largest digit.
9. The sum of its hundreds digit and its tens digit is 10.
10. Its ones digit is 4.



Draw a graph for each inequality.

4) $n < 3$

6) $p > -1$

8) $p \geq -6$

10) $n \leq -3$

12) $x < 4$

14) $x \geq 2$

16) $n \leq -2$

18) $x \geq -1$

20) $x \leq 3$

22) $x \geq 4$

5) $b < -5$

7) $b \leq -1$

9) $v < 1$

11) $x \leq 1$

13) $n > -4$

15) $n \geq 6$

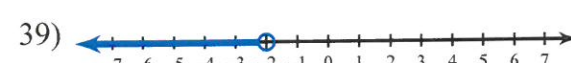
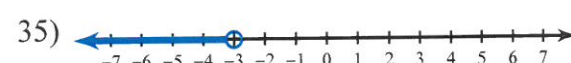
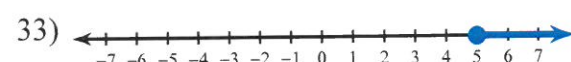
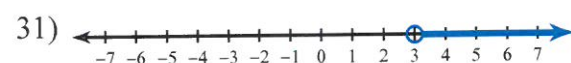
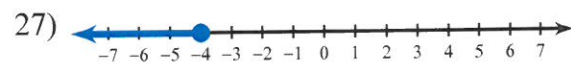
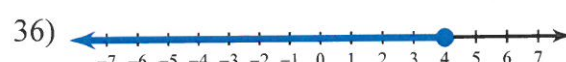
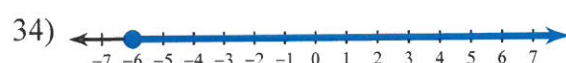
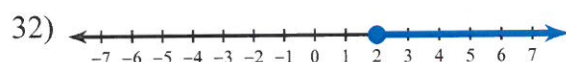
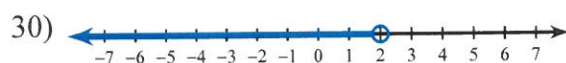
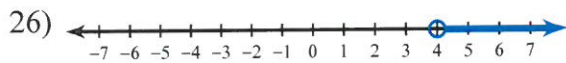
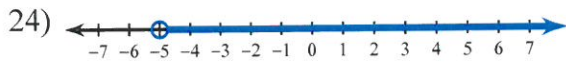
17) $n > -2$

19) $n \leq 6$

21) $b \geq 0$

23) $r \geq -4$

Write an inequality for each graph.



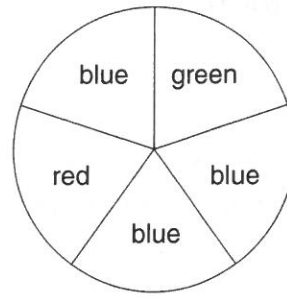
Find the probability of each event using the spinner.

41. landing on blue _____

42. landing on red _____

43. landing on green _____

44. not landing on blue _____



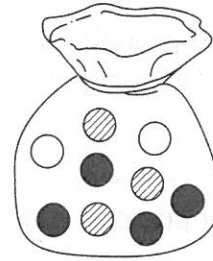
Find the probability of each event using the bag of marbles.

45. picking a black marble _____

46. picking a striped marble _____

47. picking a white marble _____

48. not picking a white marble _____



A standard number cube is rolled. Find each probability.

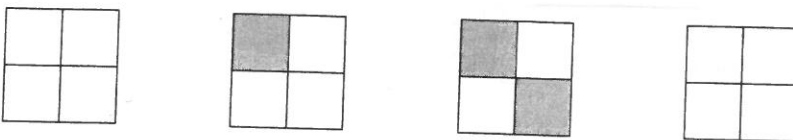
49. $P(2)$ _____

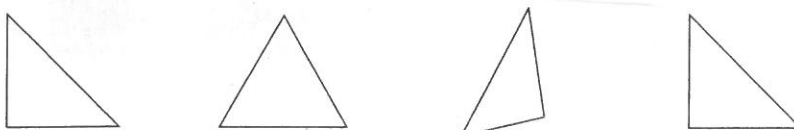
50. $P(\text{even number})$ _____

51. $P(4 \text{ or } 5)$ _____

52. $P(\text{odd number})$ _____

53. 

54. 

55. 

56. 

name the next three terms.

57. 4, 8, 16, 32, \square , \square , \square , ...

58. 100, 95, 90, 85, \square , \square , \square , ...

59. 8, 20, 32, 44, \square , \square , \square , ...

60. 6, 12, 18, 24, \square , \square , \square , ...

61. 9, 18, 27, 36, \square , \square , \square , ...

62. 3, 6, 12, 24, \square , \square , \square , ...

63. 5, 10, 20, 40, \square , \square , \square , ...

64. 100, 125, 150, 175, \square , \square , \square , ...

65. 20, 18, 16, 14, 12, \square , \square , \square , ...

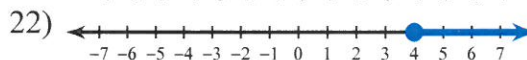
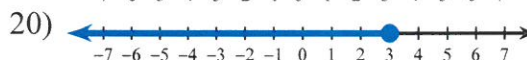
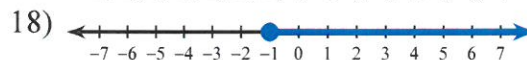
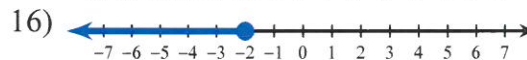
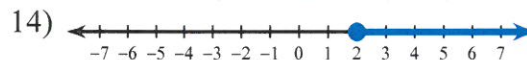
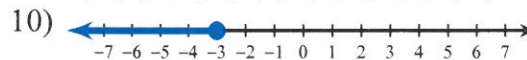
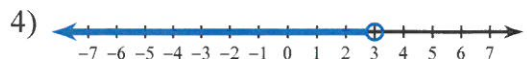
66. 4, 8, 12, 16, 20, \square , \square , \square , ...

Answers to Quest Odds and Ends

1. 314

2. 139

3. 374



24) $k > -5$

25) $p \geq -5$

28) $x < 4$

29) $x > -2$

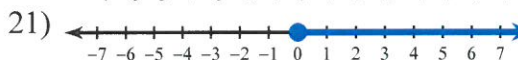
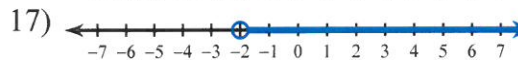
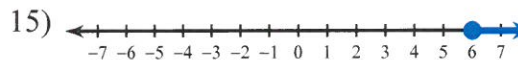
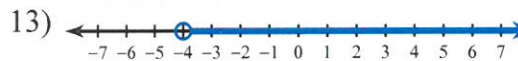
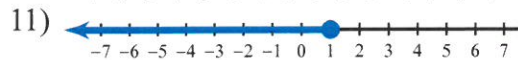
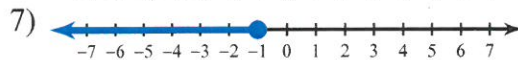
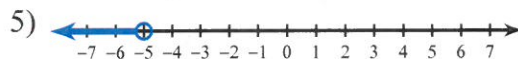
32) $r \geq 2$

33) $n \geq 5$

36) $n \leq 4$

37) $r \leq 0$

40) $m < 6$



26) $b > 4$

27) $x \leq -4$

30) $n < 2$

31) $a > 3$

34) $r \geq -6$

35) $x < -3$

38) $n \leq 3$

39) $x < -2$

41. $\frac{3}{5}$

42. $\frac{1}{5}$

43. $\frac{1}{5}$

44. $\frac{2}{5}$

45. $\frac{4}{9}$

46. $\frac{1}{3}$

47. $\frac{2}{9}$

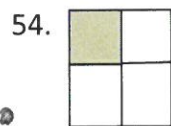
48. $\frac{7}{9}$

49. $\frac{1}{6}$

50. $\frac{1}{2}$

51. $\frac{1}{3}$

52. $\frac{1}{2}$



57. 64, 128, 256

58. 80, 75, 70

59. 56, 68, 80

60. 30, 36, 42

61. 45, 54, 63

62. 48, 96, 192

63. 70, 110, 160

64. 200, 225, 250

65. 10, 8, 6

66. 24, 28, 32