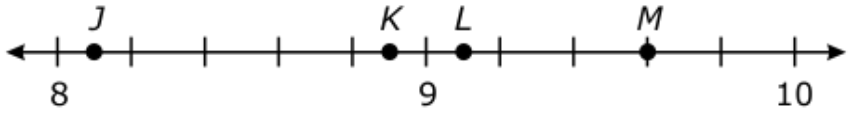
TEST NAME: **8th Grade EOG Review-NS**
TEST ID: **145532**
GRADE: **08**
SUBJECT: **Mathematics**
TEST CATEGORY: **Shared Classroom Assessments**

Student: _____

Class: _____

Date: _____

1. Which letter is located at ***approximately*** $\sqrt{83}$ on the number line below?



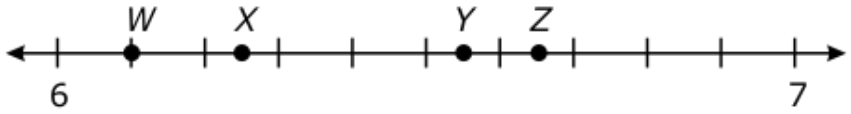
A. *J*

B. *K*

C. *L*

D. *M*

2. Which letter is located at ***approximately*** $\sqrt{43}$ on the number line below?



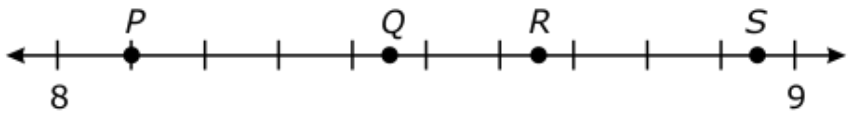
A. *W*

B. *X*

C. *Y*

D. *Z*

3. Which letter is located at ***approximately*** $\sqrt{80}$ on the number line below?



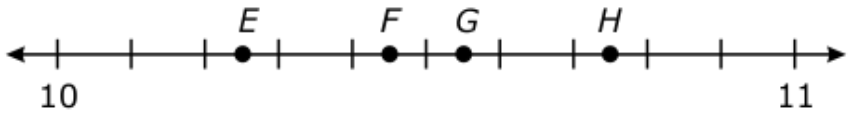
A. *P*

B. *Q*

C. *R*

D. *S*

4. Which letter is located at ***approximately*** $\sqrt{110}$ on the number line below?



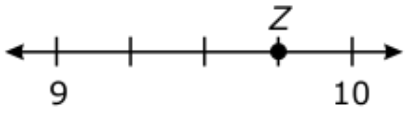
A. *E*

B. *F*

C. *G*

D. *H*

5. Which number is located at ***approximately*** point *Z* on the number line below?



A. $\sqrt{89}$

B. $\sqrt{92}$

C. $\sqrt{95}$

D. $\sqrt{99}$

6. Which number is irrational?

A. $\sqrt{\frac{9}{16}}$

B. $\sqrt{6}$

C. $\sqrt{9}$

D. $\sqrt{0.36}$

7. Which number is irrational?

A. $\sqrt{4}$

B. $\sqrt{8}$

C. $\sqrt{16}$

D. $\sqrt{64}$

8. Which number is a rational number?

A. $\sqrt{0.9}$

B. $\sqrt{0.09}$

C. $\sqrt{1.6}$

D. $\sqrt{0.016}$

9. Which set of numbers is all irrational numbers?

A. $\left\{\sqrt{\frac{1}{4}}, \sqrt{\frac{1}{8}}, \sqrt{\frac{1}{16}}\right\}$

B. $\{\sqrt{6}, \sqrt{8}, \sqrt{10}\}$

C. $\{\sqrt{15}, \sqrt{20}, \sqrt{25}\}$

D. $\{\sqrt{0.4}, \sqrt{0.9}, \sqrt{0.16}\}$

10. Which number is more than $\frac{1}{2}$ but less than $\frac{3}{4}$?

A. $\sqrt{\frac{2}{9}}$

B. $\sqrt{\frac{1}{4}}$

C. $\sqrt{\frac{5}{9}}$

D. $\sqrt{\frac{4}{5}}$

11. Which ***best*** describes the value of $\sqrt{60}$?

A. between 7 and 7.5

B. between 7.5 and 8

C. between 15 and 15.5

D. between 15.5 and 16

12. Which number is greater than 7 but less than 8?

A. $\sqrt{80}$

B. $\sqrt{70}$

C. $\sqrt{50}$

D. $\sqrt{40}$

13. Which number is greater than 4 but less than 6?

A. $\sqrt{10}$

B. $\sqrt{15}$

C. $\sqrt{35}$

D. $\sqrt{40}$

14. Which fraction is equivalent to $0.\overline{44}$?

A. $\frac{4}{10}$

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

C. $\frac{44}{100}$

D. $\frac{44}{90}$

15. Which list of real numbers is ordered from least to greatest?

A. $-4, -\sqrt{15}, -\sqrt{20}$

B. $-\sqrt{20}, -\sqrt{15}, -4$

C. $-\sqrt{15}, -4, -\sqrt{20}$

D. $-\sqrt{20}, -4, -\sqrt{15}$

16. To which set of numbers does the real number -4.4 belong?

A. integer

B. rational

C. natural

D. whole

17. Which statement is true?

A. The number $0.\overline{77}$ is an irrational number.

B. The number $\frac{2}{3}$ is a rational number.

C. The $\sqrt{81}$ is an irrational number.

D. The $\sqrt{10}$ is a rational number.

18. Which statement is true?

A. $\sqrt{15} > 4.2$

B. $3.8 > \sqrt{18}$

C. $\sqrt{20} > 4.9$

D. $5.1 > \sqrt{24}$

19. Which number is between 5 and 7?

A. $\sqrt{12}$

B. $\sqrt{18}$

C. $\sqrt{24}$

D. $\sqrt{30}$

20. Which list is ordered from least to greatest?

A. $3.5, \sqrt{8}, \sqrt{15}, \frac{19}{6}$

B. $3.5, \frac{19}{6}, \sqrt{8}, \sqrt{15}$

C. $\sqrt{8}, \sqrt{15}, \frac{19}{6}, 3.5$

D. $\sqrt{8}, \frac{19}{6}, 3.5, \sqrt{15}$

21. What is the ***approximate*** value of $\sqrt{41}$?

A. 6.4

B. 6.8

C. 10.3

D. 20.5

22. The square root of 145 is between which two numbers?

A. 72 and 73

B. 36 and 37

C. 12 and 13

D. 11 and 12

23. The square root of 67 is between which two whole numbers?

A. 7 and 8

B. 8 and 9

C. 16 and 17

D. 33 and 34

24. Which list of real numbers is ordered from least to greatest?

A. $\sqrt{38}, 6.5, 6\frac{3}{5}$

B. $\sqrt{38}, 6\frac{3}{5}, 6.5$

C. $6\frac{3}{5}, 6.5, \sqrt{38}$

D. $6.5, \sqrt{38}, 6\frac{3}{5}$

25. Which list is ordered from least to greatest?

A. $2\frac{1}{5}, 2.4, \sqrt{8}$

B. $2.4, 2\frac{1}{5}, \sqrt{8}$

C. $\sqrt{8}, 2\frac{1}{5}, 2.4$

D. $\sqrt{8}, 2.4, 2\frac{1}{5}$

26. Which statement is true?

A. $\sqrt{8} < 2.\overline{5} < \frac{18}{5}$

B. $\sqrt{8} < \frac{18}{5} < 2.\overline{5}$

C. $2.\overline{5} < \sqrt{8} < \frac{18}{5}$

D. $\frac{18}{5} < \sqrt{8} < 2.\overline{5}$

27. Which of these real numbers is irrational?

A. $\frac{3}{8}$

B. -0.52

C. $\sqrt{6}$

28. Which set of numbers contains only natural numbers?

A. $\left\{-\sqrt{64}, \frac{16}{2}, \sqrt{81}\right\}$

B. $\left\{4, \frac{16}{2}, \sqrt{81}\right\}$

C. $\left\{2, \frac{15}{2}, \sqrt{81}\right\}$

29. Which is an irrational number?

A. $\sqrt{150}$

B. $\sqrt{100}$

C. $\sqrt{25}$

30. Which number is greater than 3, but less than 4?

A. $\sqrt{6}$

B. $\sqrt{8}$

C. $\sqrt{10}$

31. The value of $\sqrt{48}$ is between which two consecutive integers?

A. 6 and 7

B. 12 and 13

C. 24 and 25

32. Which statement is true?

A. All integers are irrational numbers.

B. All repeating decimals are irrational numbers.

C. Some square roots are irrational numbers.

D. Some terminating decimals are irrational numbers.

33. Which has the greatest value?

A. $\sqrt{8}$

B. $2.\overline{4}$

C. $\sqrt[3]{8}$

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

34. To which sets of numbers do 0.6667 and $\frac{3}{4}$ belong?

A. irrational only

B. rational only

C. rational and integer

D. rational and natural

35. Which rational number is also a natural number?

A. 0

B. 1

C. 1.5

36. Which number is greater than 9 but less than 10?

A. $\sqrt{80}$

B. $\sqrt{90}$

C. $\sqrt{100}$

37. What is the ***approximate*** value of $x + y \bullet z$ when $x = \sqrt{15}$, $y = 5$, and $z = \sqrt{35}$?

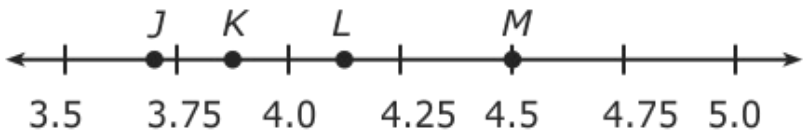
A. 15

B. 34

C. 54

D. 98

38. Which point is located at ***approximately*** $\sqrt{17}$ on the number line below?



A. *J*

B. *K*

C. *L*

D. *M*

39. Which point on the number line is located at ***approximately*** the square root of 7?

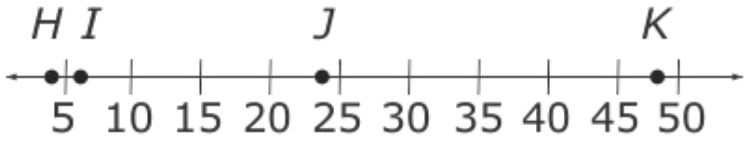
A. *P*

B. *Q*

C. *R*

D. *S*

40. Which point is located at ***approximately*** $\sqrt{48}$?



A. *H*

B. *I*

C. *J*

D. *K*

41. What is the ***approximate*** sum of $\sqrt{53}$ and $\sqrt{97}$?

A. 12

B. 17

C. 75

D. 150

42. Which list is ordered from greatest to least?

A. $\sqrt{8}, \sqrt{9}, 3.1, \frac{7}{2}$

B. $\sqrt{9}, \sqrt{8}, 3.1, \frac{7}{2}$

C. $\frac{7}{2}, 3.1, \sqrt{9}, \sqrt{8}$

D. $\frac{7}{2}, \sqrt{8}, \sqrt{9}, 3.1$

43. Which list of real numbers is ordered from greatest to least?

A. $^{-}15, {}^{-}\sqrt{125}, {}^{-}\sqrt{95}, {}^{-}16$

B. ${}^{-}\sqrt{125}, {}^{-}\sqrt{95}, {}^{-}16, {}^{-}15$

C. ${}^{-}\sqrt{95}, {}^{-}\sqrt{125}, {}^{-}15, {}^{-}16$

D. $^{-}16, {}^{-}15, {}^{-}\sqrt{125}, {}^{-}\sqrt{95}$

44. The distance from a person to the horizon from eye-level height is determined by the formula $d = \sqrt{\frac{3h}{2}}$, where *d* is the distance from the horizon in miles, and *h* is a person's eye-level height in feet above sea level. Trevor has an eye-level height of 6 feet and stands 12 feet above sea level. ***Approximately*** how far is Trevor from the horizon?

A. 3.0 mi

B. 3.4 mi

C. 4.2 mi

D. 5.2 mi

45. Which set of numbers contains only integers?

A. $\left\{\frac{1}{3}, 3, -6\right\}$

B. $\{-2, 0, 3\}$

C. $\left\{-3, -\frac{1}{2}, -0.5\right\}$

46. Which fraction is equivalent to $0.8\overline{3}$?

A. $\frac{83}{100}$

B. $\frac{5}{6}$

C. $\frac{4}{5}$

47. What is the ***approximate*** value of $\sqrt{50} - \sqrt{24}$?

A. 13

B. 5

C. 2

48. The value of $\sqrt{75}$ is between which two consecutive integers?

A. 37 and 38

B. 18 and 19

C. 8 and 9

49. What is the ***approximate*** value of $x \bullet y$ when $x = \sqrt{5}$ and $y = \sqrt{8}$?

A. 6

B. 8

C. 20

50. Which set of numbers contains only integers?

A. $\{^{-}4, ^{-}7, 3\}$

B. $\{^{-}6, 9, 3.5\}$

C. $\{0, 0.5, 1\}$

51. Which fraction is equivalent to $0.\overline{6}$?

A. $\frac{3}{4}$

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

C. $\frac{2}{3}$

52. Which set of numbers contains only whole numbers?

A. $\{^{-}1, 0, 1\}$

B. $\{0, 0.5, 1\}$

C. $\{0, 1, 2\}$

53. Which set of numbers are all rational numbers?

A. $\left\{\frac{1}{3}, \frac{1}{6}, \sqrt{\frac{1}{9}}\right\}$

B. $\left\{\frac{1}{3}, 3, \sqrt{3}\right\}$

C. $\{\sqrt{4}, \sqrt{10}, \sqrt{16}\}$

54. Which fraction is equivalent to $0.\overline{25}$?

A. $\frac{25}{100}$

B. $\frac{25}{99}$

C. $\frac{25}{90}$

55. Which set of numbers is only rational numbers?

A. $\{3.5, -4, \sqrt{0.5}\}$

B. $\{-2, 0, \sqrt{0.4}\}$

C. $\left\{2, \frac{1}{4}, \sqrt{0.36}\right\}$

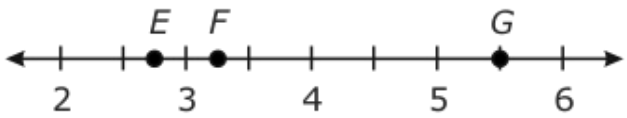
56. Which list of numbers is ordered from least to greatest?

A. $6, \sqrt{35}, \sqrt{40}$

B. $\sqrt{35}, 6, \sqrt{40}$

C. $\sqrt{35}, \sqrt{40}, 6$

57. Which point is located at ***approximately*** $\sqrt{11}$ on the number line below?



A. Point *E*

B. Point *F*

C. Point *G*

58. Which number is located at ***approximately*** point *G* on the number line below?

A. $\sqrt{35}$

B. $\sqrt{24}$

C. $\sqrt{12}$

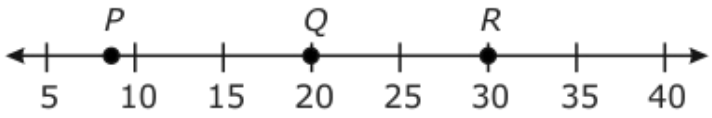
59. Which set of numbers is in order from least to greatest?

A. $\sqrt{8}, 2.5, 3$

B. $2.5, 3, \sqrt{8}$

C. $2.5, \sqrt{8}, 3$

60. Which point is located at ***approximately*** $\sqrt{60}$ on the number line below?

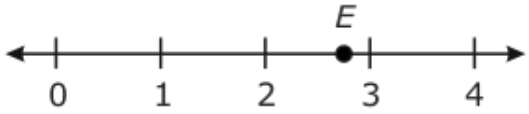


A. Point *P*

B. Point *Q*

C. Point *R*

61. Which number is located at ***approximately*** point *E* on the number line below?



A. $\sqrt{6}$

B. $\sqrt{8}$

C. $\sqrt{12}$

62. Between which two points is $\sqrt{14}$ located on the number line below?

A. *J* and *K*

B. *K* and *L*

C. *L* and *M*

63. Which list is ordered from least to greatest?

A. $2.5, \sqrt{8}, \sqrt{10}, 6$

B. $2.5, 6, \sqrt{8}, \sqrt{10}$

C. $\sqrt{8}, 2.5, \sqrt{10}, 6$

64. If $s = \sqrt{35}$ and $t = \sqrt{140}$, what is the ***approximate*** value of $s \div t$?

A. 0.25

B. 0.50

C. 2.0

D. 4.0

65. Which set of numbers contains only natural numbers?

A. $\{0, 1, 2\}$

B. $\{-3, 0, 3\}$

C. $\{\sqrt{36}, 58, 124\}$

D. $\left\{21.6, 72\frac{1}{2}, 100\right\}$

66. Which set of numbers contains only rational numbers?

A. $\left\{-1, 0, \sqrt{\frac{1}{4}}, 3.\overline{2}\right\}$

B. $\left\{\sqrt{\frac{1}{4}}, \sqrt{4}, \sqrt{8}, \sqrt{16}\right\}$

C. $\left\{\sqrt{\frac{1}{2}}, \sqrt{\frac{3}{4}}, \sqrt{\frac{4}{9}}, \sqrt{\frac{5}{16}}\right\}$

D. $\{-1, \sqrt{3}, 4.4, 5\}$

67. Which letter is located at ***approximately*** $\sqrt{70}$ on the number line below?

A. *M*

B. *N*

C. *O*

D. *P*

68. Which number below is greater than 3 but less than 5?

A. $\sqrt{4}$

B. $\sqrt{8}$

C. $\sqrt{20}$

D. $\sqrt{25}$

69. Which set of numbers below contains all integers?

A. $-\sqrt{4}, -\sqrt{1}, 0, \sqrt{9}, \sqrt{16}$

B. $-3, -\frac{1}{4}, -\frac{1}{8}, 0, 2$

C. $-1.5, 0, 1, 3, 6$

D. $-3, -1, 0, 5, 7.1$

70. Which ***best*** describes the value of $\sqrt{98}$?

A. between 8.5 and 9

B. between 9 and 9.5

C. between 9.5 and 10

D. between 10 and 10.5

71. Which number below is greater than 8 and less than 10?

A. $\sqrt{101}$

B. $\sqrt{72}$

C. $\sqrt{63}$

D. $\sqrt{9}$

72. Which fraction is equivalent to $0.\overline{90}$?

A. $\frac{10}{11}$

B. $\frac{9}{10}$

C. $\frac{11}{10}$

D. $\frac{99}{100}$

73. Which fraction is equivalent to $0.\overline{6}$?

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

B. $\frac{5}{8}$

C. $\frac{2}{3}$

D. $\frac{4}{7}$

74. Which fraction is equivalent to $0.\overline{27}$?

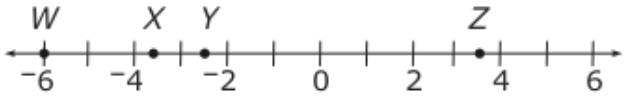
A. $\frac{27}{100}$

B. $\frac{5}{18}$

C. $\frac{3}{11}$

D. $\frac{1}{45}$

75. Which point on the number line is located at ***approximately*** $\sqrt{12}$?



A. *W*

B. *X*

C. *Y*

D. *Z*

76. Which number is an example of an irrational number?

A. $\sqrt{\frac{8}{16}}$

B. $\sqrt{\frac{16}{25}}$

C. $\sqrt{0.25}$

D. $\sqrt{36}$

77. Which choice is an irrational number?

A. $\sqrt{0.01}$

B. $\sqrt{\frac{4}{25}}$

C. $-\sqrt{9}$

D. $\sqrt{15}$

78. Which set of numbers contains only irrational numbers?

A. $\sqrt{12}, \sqrt{\frac{2}{3}}, \sqrt{\frac{9}{16}}$

B. $\sqrt{0.24}, \sqrt{0.54}, \sqrt{0.64}$

C. $\sqrt{1}, \sqrt{3}, \sqrt{5}$

D. $\sqrt{10}, \sqrt{20}, \sqrt{30}$

79. The area of a square parking lot is 2,400 m^2. What is the ***approximate*** length of each side of the parking lot?

A. 15 m

B. 49 m

C. 60 m

D. 600 m

80. Which choice is ***both*** an integer and a rational number?

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

B. $\sqrt{3}$

C. $\sqrt{3^2}$

D. 3.2

81. Which fraction is equivalent to $0.41\overline{6}$?

A. $\frac{21}{50}$

B. $\frac{52}{125}$

C. $\frac{13}{31}$

D. $\frac{5}{12}$

82. A square room has an area of 210 ft^2. Which is the ***closest*** approximation of the length of one side of the room?

A. 10.1 ft

B. 10.5 ft

C. 14.1 ft

D. 14.5 ft

83. Mrs. Berg's kitchen floor is shaped like a square. The area of the floor is 70 $feet^2$. Between which two consecutive integers is the length of Mrs. Berg's kitchen floor?

A. 9 feet and 10 feet

B. 8 feet and 9 feet

C. 7 feet and 8 feet

D. 6 feet and 7 feet