7th

Name _____ Date _____ Class _____

End of Course Test Common Assessment 2

Choose the best answer.

For 1–2, use the data set.

Stem	Leaves
2	0 8 9 9
3	1 2 6
4	1 2

1. What is the mean of the data set?

   A 22 C 31

   B 29 D 32

2. What is the median of the data set?

   F 22 H 31

   G 29 J 32

3. Subtract $\frac{3}{4} - \frac{2}{3}$.

   A 12 C $\frac{1}{12}$

   B $\frac{5}{12}$ D $\frac{1}{2}$

4. Solve $x - \frac{3}{4} = 1\frac{1}{8}$.

   F $\frac{7}{8}$ H $1\frac{5}{8}$

   G $\frac{5}{8}$ J $1\frac{7}{8}$

5. Which expression is equivalent to "12 less than the product of 4 and a number"?

   A $4n - 12$ C $12n - 4$

   B $12n + 4$ D $\frac{n - 12}{4}$

6. Evaluate $2 + 6[(4 + 4) \div 2]$.

   F 48 H 32

   G 38 J 26

7. Solve $5z = 105$.

   A $z = 21$ C $z = 105$

   B $z = 100$ D $z = 525$

8. Find the difference $-6 - (-3)$.

   F -9 H 3

   G -3 J 9

9. Solve $\frac{k}{-8} = -6$.

   A $k = -48$ C $k = 2$

   B $k = -14$ D $k = 48$

10. Convert $\frac{45}{20}$ to a decimal.

    F 2.25 H 0.25

    G $2\frac{1}{4}$ J 0.44

11. Find the product $-3.5 \cdot 1.4$.

    A -4.9 C -0.49

    B 0.49 D 4.9

12. Solve $7.2h = 57.6$.

    F $h = 0.8$ H $h = 50.4$

    G $h = 8$ J $h = 80$

13. Find the quotient $3\frac{6}{7} \div \frac{5}{21}$.

    A $\frac{5}{81}$ C $1\frac{4}{45}$

    B $\frac{45}{49}$ D $16\frac{1}{5}$

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Name_____ Date_____ Class_____

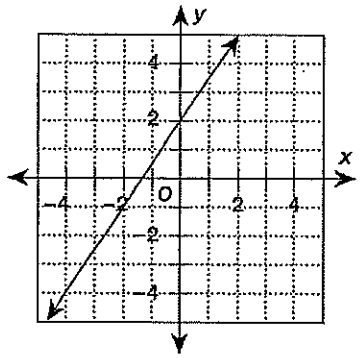
End of Course Test

14. Solve $x - 6\frac{1}{2} = 3\frac{2}{3}$.

F $x = 10\frac{1}{6}$ H $x = 9\frac{1}{6}$

G $x = 9\frac{3}{5}$ J $x = -3\frac{1}{6}$

15. How would you describe this graph?



A Directly proportional

B Not proportional

16. What are the coordinates of the point that is 2 units right and 1 units down from the origin?

F $(2, 1)$ H $(2, -1)$

G $(-2, 1)$ J $(-1, 2)$

17. Use cross products to solve the proportion $\frac{5}{m} = \frac{15}{9}$.

A $m = 1$ C $m = 8\frac{1}{3}$

B $m = 3$ D $m = 27$

18. Simplify $2x^2 - 6x^2 + 3x^2 + 7$

F $-11x^2 + 7$ H $x^2 + 7$

G $11x^2 + 7$ J $-x^2 + 7$

19. A scale model of a building is 5 inches wide by 7 inches long. If the scale is 1 in.:15 ft, how long is the building?

A 35 ft C 105 ft

B 75 ft D 180 ft

20. What is 85% written as a fraction?

F $\frac{17}{20}$ H 0.85

G $1\frac{3}{17}$ J $\frac{85}{1}$

21. About how much will a $459.95 LCD TV cost including the sales tax of 8.25%?

A $400 C $500

B $475 D $525

22. Find the percent of decrease if 110 is decreased to 88.

F –125% H –25%

G –80% J –20%

23. What is the simple interest rate if $p = \$4{,}000$, $t = 2$ years, and $I = \$320$?

A 2% C 8%

B 4% D 80%

24. What is the direct variation equation for the data in the table? (HINT: find "k")

Cost (y)	7.50	10.00	12.50	15.00
Pound (x)	3	4	5	6

F $y = 2.5x$ H $y = -2.5x$

G $y = \frac{2}{5}x$ J $y = -\frac{2}{5}x$

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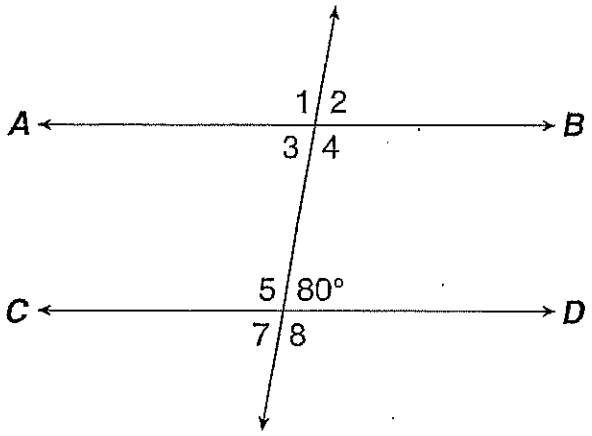
Name _____ Date _____ Class _____

End of Course Test

Use the figure for 25-26. Line *AB* is parallel to line *CD*.



25. What is the measure of $\angle 2$?

A 180° C 80°

B 100° D 20°

26. What is the measure of $\angle 7$?

F 180° H 80°

G 100° J 20°

27. What is the measure of $\angle 5 + \angle 7$?

A 180° C 80°

B 100° D 20°

28. Two angles of a triangle measure 20° and 60°. What is the measure of the third angle of the triangle?

F 50° H 90°

G 80° J 100°

29. Find the area of a triangle with base 10 centimeters and height 8.5 centimeters.

A 85 cm^2 C 37 cm^2

B 42.5 cm^2 D 18.5 cm^2

30. What is the constant of proportionality of the coordinates (-1, 2)?

F $-\frac{1}{2}$ H 2

G –2 J –1

31. Find the volume of a pentagonal prism with a height of 12 inches and a base area of 24.5 square inches.

A. 294 sq. in. B. 294 cubic in.

32. Jose worked 28 hours and earned $418.24. What did he earn per hour?

F $5.10 H $11.70

G $7.47 J $14.94

33. What is the volume of a triangular prism having a triangular base of 4 inches and a triangular height of 5 inches and a prism height of 12 inches

A 240 in.

B 120 in. squared

C 120 in. cubed

D 240 in. cubed

34. Helen has four jogging outfits and three pairs of shoes. How many different outfits can she make?

F 1 outfit H 10 outfits

G 7 outfits J 12 outfits

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Name _____ Date _____ Class _____

End of Course Test

35. How many different outfits can be made from tops of sweaters or sweatshirts and bottoms of jeans, shorts or khaki's?

A 2 ways C 6 ways

B 4 ways D 12 ways

36. Kia's experimental probability of striking out at baseball is 13%. Out of 30 times at bat, about how many times will she strike out?

F 4 H 12

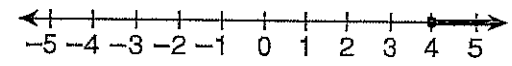
G 9 J 18

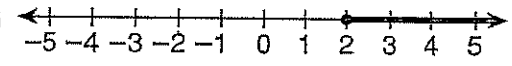
37. Solve $4w = 2w - 12$.

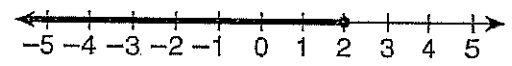
A $w = -6$ C $w = 2$

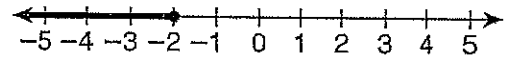
B $w = -2$ D $w = 6$

38. Which is the graph of the solution set of $n - 3 \geq -1$.

F 

G 

H 

J 

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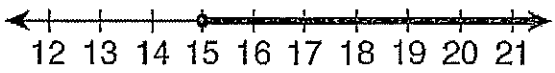
Name _____ Date _____ Class _____

39. Solve $-2n + 5 > 7$.

A $n > 1$ C $n > -1$

B $n < 1$ D $n < -1$

40. Which inequality has the following graphed solution?



F $45 > 3y$ H $3y < 45$

G $3y \leq 45$ J $45 \leq 3y$

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