1 . Express 0.00247 as a numeral in Scientific Notation

A. 0.247×10^{-2} B. 0.247×10^{2} C 2.47×10^{-3} D. 2.47×10^{3}

2. Convert $0.\overline{34}$ to a fraction in simplest form.

A. $\frac{34}{100}$ B. $\frac{34}{99}$ C. $\frac{31}{90}$ D. $\frac{17}{50}$

3. If $\bar{}5g = \bar{}45$ then g =

A. $\frac{1}{9}$ B. 9 C. $\frac{\bar{}1}{9}$ D. $\bar{}9$

4 If $w - \bar{}12 = 25$ then w =

A. 37 B. $\bar{}13$ C. 13 D. $\bar{}37$

5. If $4n + 3 = 23$ then n =

A. $3\frac{2}{23}$ B. 5 C. $5\frac{4}{23}$ D. 4

6. If $\frac{s}{8} + 4 = 6$ then s =

A. $\frac{1}{2}$ B. 4 C. 20 D. 16

7. If $3h > 12$ then the solution set for h is

A. $h > 4$ B. $h < 4$ C. $h > 36$ D. $h < 36$

8. If $r + \bar{}8 < 17$ then the solution set for r is

A. $r < 9$ B. $r < \bar{}9$ C. $r < 25$ D. $r > 25$

9. If $5 – 2n < 7$ then

A. $n < 1$ B. $n < \bar{}1$ C. $n > \bar{}6$ D. $n > \bar{}1$

10. If $5p – 4 > 8$

A. $p < 2.4$ B. $p > 0.2$ C. $p > 2.4$ D. $p > 7$

11. Simplify: $3x – 4y + 15x + 9y$

A. $23xy$
B. $18x + 5y$
C. $\bar{}12x – 5y$
D. $18x – 5y$

12. Simplify: $\bar{}2(3a – 5b) – (5a + 6b)$

A. $\bar{}11a – 16b$
B. $\bar{}11a – 11b$
C. $\bar{}11a + 4b$
D. $\bar{}11a + b$

13. Translate into a variable expression: Fifteen less than twice a number

A. 15 – 2n
B. 15 + 2n
C. 2n – 15
D. n – 15

14. Simplify : 2^{-3}

A. $\frac{1}{8}$ B. $^{-}8$ C. $\frac{2}{3}$ D. $\frac{^{-}1}{8}$

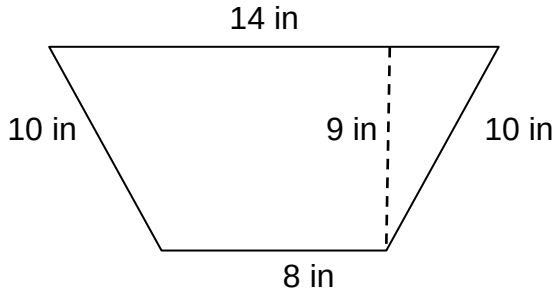
15. Simplify : $^{-}5^{2}$

A. $\frac{1}{25}$ B. $^{-}25$ C. 25 D. $\frac{^{-}1}{25}$

16. To the nearest hundredth, what is the area of a circle with a diameter of 10 cm? (use 3.14 to approximate π)

A. 31.40 cm^2 B. 78.50 cm^2 C. 314.00 cm^2 D. 15.70 cm^2

17. Find the area of the trapezoid pictured below



A. 42 in^2 B. 99 in^2 C. 51 in^2 D. 198 in^2

18. If the area of a triangle is 48 ft^2 and the height is 6 ft what is the length of the base?

A. 18 ft B. 42 ft C. 8ft D. 16 ft

19. The area of a rectangle is 50 m. If the length is 5 m what is the perimeter?

A. 30 m B. 10 m C. 15 m D. 55 m

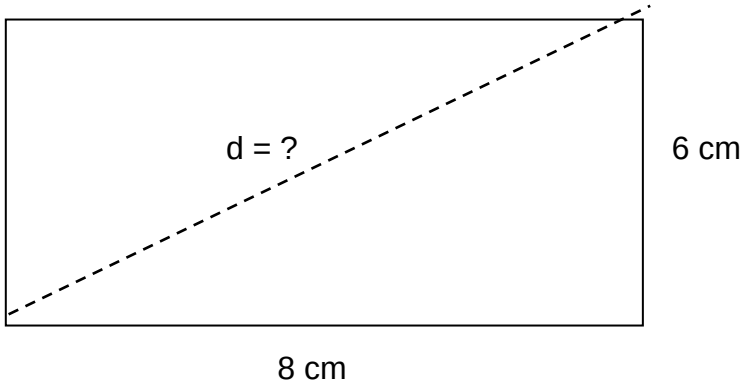
20. Compute : $4.2 \times 10^8 + 2.1 \times 10^9$

A. 6.3×10^8 B. 2.1×10 C. 2.52×10^9 D. 6.3×10^9

21. A 13 foot ladder is leaning against a building. The base of the ladder is 5 ft from the base of the building. To the nearest foot how far up the building does the ladder extend?

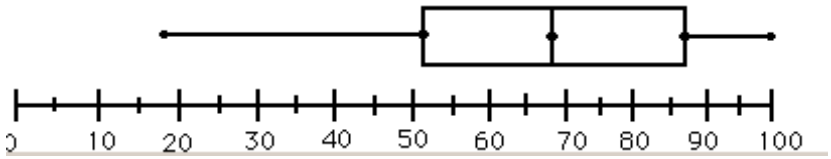
A. 14 ft B. 12 ft C. 18 ft D. 8 ft

22. To the nearest centimeter what is the length of the diagonal of the rectangle in the diagram below?



A. 14 cm B. 28 cm C. 10 cm D. 5 cm

23. A box-and-whisker plot has been used to represent a set of data.



Based on the box-and-whisker plot, what is the median of the set of data?

A. Approximately 18
B. Approximately 52
C. Approximately 68
D. Approximately 86

24. The table below shows test scores for a class. How many students scored in the 80's?

Stem	Leaf
9	0 1 1 5 7
8	0 0 2 4 6 7 9
7	7 7 8 9
6	9
5	2 3
4	4

A. 2 students
B. 6 students
C. 7 students
D. 9 students

25. A compound contains 5 parts sulfur, 20 parts potassium nitrate, and 25 parts charcoal. How many pounds of sulfur are in 200 pounds of the compound?

A. 50 pounds
B. 100 pounds
C. 150 pounds
D. 20 pounds

26. Divide 7500 into three parts using the proportion of 4:5:6

A. 20: 25: 30 B. 2000: 2500: 3000 C. 2500 D. 2500: 2500: 2500

27. It took 4 hours for 12 students to paint the gym. How long would it have taken if only 8 students had helped?

A. 2 hours
B. 6 hours
C. 8 hours
D. $2\frac{2}{3}$ hours

28. The scout troop has enough food to last for 10 days for 20 scouts. If there are 25 scouts, how many days will the food last?

A. 9 days B. 5 days C. 8 days D. 12.5 days

29. If 15 tickets for a show cost $97.50 how many tickets can be bought for $71.50?

A. 20 tickets B. 10 tickets C. 11 tickets D. 12 tickets

30. What is the x-intercept of the linear equation 3x + 2y = 6?

A. 3 B. 5 C. 2 D. 6

31. What is the y-intercept of the equation 5x + 4y = 20?

A. 9 B. 5 C. 20 D. 4

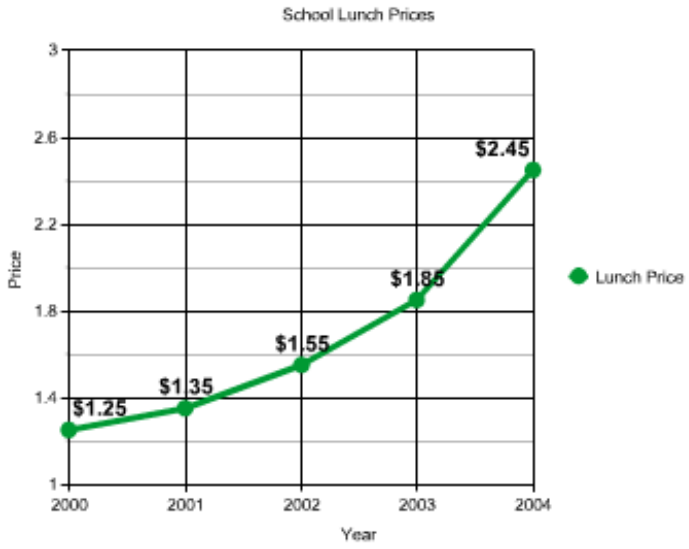
32. Find the slope of the line through the points (1,7) and (3,4).

A. $\frac{-3}{2}$ B $\frac{-2}{3}$ C. $\frac{2}{3}$ D. $\frac{3}{2}$

33. Find the slope of the line whose equation is 2x – 7y = 12

A. $\frac{7}{2}$ B $\frac{-7}{2}$ C. $\frac{2}{7}$ D. $\frac{-2}{7}$

34. Using the graph below which is the best prediction of the price of lunches for 2005



A. $ 2.30 B. $ 5.00 C. $3.10 D. $4.90

35. A data entry clerk is given the option of being paid using one of the following two pay scales.

Option 1 - $6.00/hour plus $.50 for each full page of data he enters

Option 2 - $8.50/hour

A. If the clerk works 40 hours and enters a total of 240 full pages of data, how much would he make under Option 1? (show your work)

B. How much would he make under Option 2?

C. Which option provides the clerk with the highest income in this situation? By how much?