

Math 8 - Cumulative Final Review 1 (2020-2021)**Multiple Choice***Identify the choice that best completes the statement or answers the question.**DO ALL YOUR WORK ON A SEPERATE PIECE OF PAPER.***Solve the equation. Check your solution.**

1. $a - 8 = 11$

- a. -3
- b. 3
- c. 19
- d. 1.38

2. $-2 + a = 15$

- a. 17
- b. 7.5
- c. -13
- d. 13

3. $-4 = z - 11$

- a. 7
- b. -15
- c. 0.36
- d. -7

4. $\frac{k}{-5} = 4$

- a. -20
- b. 9
- c. $-\frac{4}{5}$
- d. 20

5. $-0.8x = 7.2$

- a. -5.76
- b. 6.4
- c. -9
- d. 8

6. $4 = -\frac{1}{6}c$

- a. 24
- b. -10
- c. -24
- d. $\frac{1}{2}$

7. $\frac{1}{2}(y - 8) = 4$

- a. 24
- b. 16
- c. -16
- d. 0

8. $8.69 + y = 2.4$

- a. 6.29
- b. 3.62
- c. -11.09
- d. -6.29

9. $\frac{3}{10} = \frac{1}{6} + x$

- a. $\frac{1}{5}$
- b. $\frac{1}{30}$
- c. $\frac{2}{15}$
- d. $\frac{7}{15}$

10. $5x + 10x - 54 = 66$

- a. -8
- b. 24
- c. 8
- d. $-\frac{44}{61}$

11. $5d + 8 = 33$

- a. 4
- b. 5
- c. 205
- d. $8\frac{1}{5}$

12. $2x - 1 = 39$

- a. 19
- b. 18
- c. 20
- d. 76

13. $15 + 5h = 30$

- a. 9
- b. 2
- c. 3
- d. 75

14. $3z = 42 + 17z$

- a. -3
- b. $2\frac{1}{10}$
- c. 3
- d. $-\frac{1}{3}$

15. $3(z - 4) = 7z + 4$

- a. -0.8
- b. 1.6
- c. -2
- d. -4

16. $5x = -7x - 96$

- a. $19\frac{1}{5}$
- b. -8
- c. $\frac{1}{8}$
- d. -48

17. Emma received a \$40 gift card that could be used to download television programs. After she downloaded 5 programs, she had \$30 remaining on her gift card. If each program costs the same amount to download, what is the cost of one download?

- a. \$2
- b. \$6
- c. \$8
- d. \$10

Solve the equation.

18. $h + 1 = h - 6$

- a. 7
- b. -7
- c. no solution
- d. infinitely many solutions

19. $5g - 50 = 5(g - 10)$

- a. 40
- b. -40
- c. no solution
- d. infinitely many solutions

20. $7b - 10 - 7b = -8$

- a. 2
- b. -2
- c. no solution
- d. infinitely many solutions

21. Between which two integers does $-\sqrt{52}$ lie?

- a. 6 and 7
- b. -6 and -7
- c. -7 and -8
- d. -20 and -21

Name the word that matches the definition given.

22. A number that, when multiplied by itself, equals a given number

- a. square root
- b. perfect square
- c. radical sign
- d. radicand
- e. cube root
- f. perfect cube

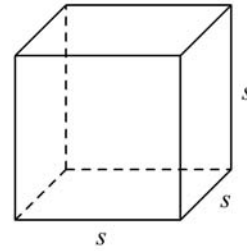
23. In any right triangle, the sum of the squares of the lengths of the legs is equal to the square of the length of the hypotenuse.

- a. theorem
- b. legs
- c. hypotenuse
- d. Pythagorean Theorem
- e. irrational number
- f. real number

24. The two sides of a right triangle that form the right angle.
- theorem
 - legs
 - hypotenuse
 - Pythagorean Theorem
 - irrational number
 - real number
25. The side of a right triangle that is opposite the right angle.
- theorem
 - legs
 - hypotenuse
 - Pythagorean Theorem
 - irrational number
 - real number
26. A number that cannot be written as the ratio of two integers.
- theorem
 - legs
 - hypotenuse
 - Pythagorean Theorem
 - irrational number
 - real number
27. Evaluate the expression.
- $$\left(\sqrt{16}\right)^2 + 21$$
- 277
 - 5
 - 37
 - 25

Find the surface area of the cube.

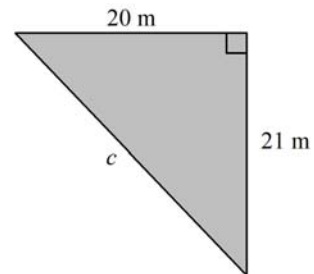
28. Volume = 216 cubic meters



- 6 meters
- 36 meters
- 216 meters
- 108 meters

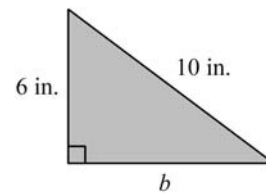
Find the missing length of the triangle.

- 29.



- 30 m
- 6.4 m
- 31 m
- 29 m

- 30.

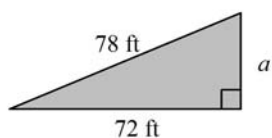


- 8 in.
- 6 in.
- 10 in.
- 11.7 in.

Name: _____

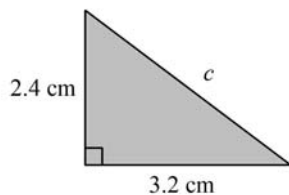
ID: A

31.



- a. 28 ft
- b. 30 ft
- c. 29 ft
- d. 106.2 ft

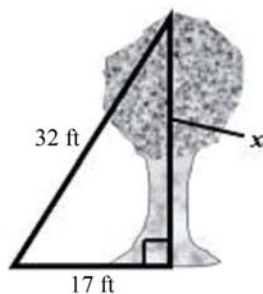
32.



- a. 3.8 cm
- b. 2.12 cm
- c. 4 cm
- d. 4.1 cm

Find the height x . Round your answer to the nearest tenth.

33.



- a. 31.7 ft
- b. 27.1 ft
- c. 36.2 ft
- d. 24.5 ft

34. Classify the real number.

$$\sqrt[3]{343}$$

- a. rational, integer, whole, natural
- b. rational
- c. rational, integer
- d. irrational

Math 8 - Cumulative Final Review 1 (2020-2021)
Answer Section

MULTIPLE CHOICE

1. C
2. A
3. A
4. A
5. C
6. C
7. B
8. D
9. C
10. C
11. B
12. C
13. C
14. A
15. D
16. B
17. A
18. C
19. D
20. C
21. C
22. A
23. D
24. B
25. C
26. E
27. C
28. C
29. D
30. A
31. B
32. C
33. B
34. A