Instructions for Online Testing

- PLEASE COMPLETE ALL THE WORK BY YOURSELF

- ZOOM CAMERA SHOULD BE ON DURING EXAM TIME; MAKE YOURSELF FULLY VISIBLE IN FRONT OF THE CAERA

- NO TALKING, CALLING, OR TEXTING DURING EXAM TIME

- CLOSE BOOK, CLOSE NOTES

- CALCULATOR IS ALLOWED

OTHER:

- Strongly recommend you do all the work on sheet of papers and have all your answers on a piece of paper before transferring those answers to the Google answer form

- Please enter your answers on the Google form at the following link—you must sign in with a Gmail account to open this form:

  https://forms.gle/KcnGcCEvq2CtMaNx5

  (Please copy and paste the link in your browser instead of Ctrl+click).

- You have 2.5 hours for the exam: 12-2:30pm. Later work after 2:30pm may not be graded.

- For questions 5, 15, 16, 20, and 31, please describe your process in the space provided on the Google form.

- You need to answer 28 questions correctly to pass the exam.

1. Brett built a tower using four different colored milk cartons. The red carton was below the green carton. The blue carton was above the yellow carton which was above the green carton. Which carton is On top?

Which of the following problem-solving strategies would be most appropriate to use to solve this problem?

  A Find a pattern   B Draw a diagram C Set up an equation   D Working backwards

2. Nicole wanted to solve a math problem: "If there are 52 weeks in a year and today makes 23 weeks, how many weeks until the end of the year?"

What should be her last problem solving step?
  A Devise a plan to solve the problem
  B Understand what the problem is asking
  C Carry out the plan
  D Look back to check her answer is correct

3. Which equation below shows the correct use of the distributive property?
  A 2(5-3) = (2 + 5) x (2 x -3)   B 2(5-3) = (2 x 5) - 3
  C 2(5-3) = (2 x 5) + (2x3)   D 2(5-3) = (2 x 5) - (2 x 3)

4. Which expression represents the phrase: *a number is 3 fewer than p?*

  A 3-p   B p-3   C 3 ÷p   D p ÷3

5. There are 230 calories in 4 ounces of a type of ice cream. How many calories are in 6 ounces of that ice cream?

  A 45   B 232   C 345   D 460

6. Use the diagram below to answer the question that follows

A teacher places a row of apples on a table and asks a child how many apples there are. The child points to each apple while saying the numbers in the proper sequence from one through five. When asked again how many apples there are, the child responds by counting the apples again.

Given this evidence, which question could the teacher ask to help the child connect counting to cardinality?

A How many apples are there?
B What is the last number name you said when counting the apples?
C How many different colors of apples are there?
D How is the first apple counted similar to the last apple counted?

7. A zoo has 15 toucans and 75 parrots. What is the ratio of the number of toucans to the number of parrots at the zoo?

   A 4:1   B 5:1   C 1:5   D 5:4

8. A box is filled with candies in different colors. We have 40 white candies, 24 green ones, 12 red ones, 24 yellow ones and 20 blue ones. If we have selected one candy from the box without peeking into it, find the probability of getting a green or red candy.

   A12/ 120   B 24/120   C 36/120   D 84/120

9. Which statement about parallelogram and trapezoid is always true?
        A Both figures are three dimensional shapes
        B Both figures are quadrilaterals
        C Both figures have no right angles
        D Both figures have four congruent sides

10. The grid shown below is in the shape of a rectangle. What is the area, in square units, of the **unshaded** part of the rectangle?
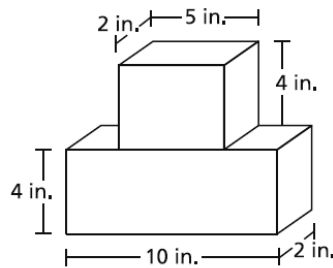
        A 14   B 24   C 28   D 48
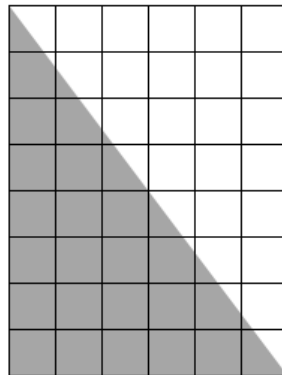
11. What is 15.74 rounded to the nearest whole number??

   A 10   B 15   C 16   D 20

12. The pair of triangles below is similar. What is the value of x?

   A 10   B 15   C 20   D 50

$x =$ _____
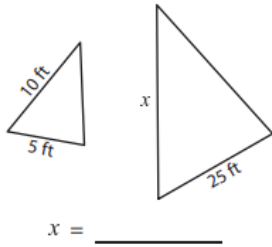
13. Which decimal number is equivalent to 7.3/100?

A 0.073   B 0.73   C 7.3   D 73

14. Lana used the two blocks pictured in the diagram to build a tower.

LANA'S TOWER

What is the total volume, in cubic inches, of the tower Lana built?

A 27   B 80   C 116   D 120

15. Jim has four test scores of 85, 87, 91, and 95. There is one more test during the semester. He wants to make an A in the class, which means he needs his average to be a 90. All five tests count the same in determining the class grade. What grade does Jim need to make on the fifth test to make an A in the class?

A 90   B 92   C 93   D 88

16. The coordinates of the points below represent the vertices of a rectangle.
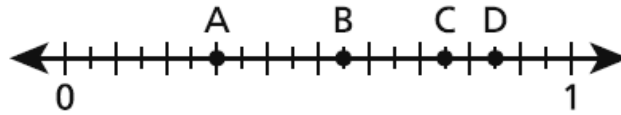   P: (2, 2); Q: (7, 2); R: (7, 5); S: (2, 5)
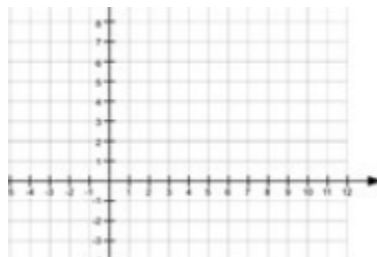
What is the perimeter, in units, of rectangle PQRS?
A 8   B 12   C 14   D 16

(*Hint: Find P, Q, R, S on the coordinate plane*)

17. Which point on the number line below represents a value of 0.75?

    A point A   B point B   C point C   D point D

18. A bakery made 9 cakes using 3 bags of flour. The bakery uses the same relationship between cakes made and the amount of flour to make all of their cakes. Which table of values shows the relationship between the numbers of cakes the bakery makes to the number of bags of flour the bakery uses?

A   CAKES BAKED

Cakes	1	2	3	4	5
Bags of Flour	3	6	9	12	15

C   CAKES BAKED

Cakes	7	8	9	10	11
Bags of Flour	1	2	3	4	5

B   CAKES BAKED

Cakes	3	6	9	12	15
Bags of Flour	1	2	3	4	5

D   CAKES BAKED

Cakes	1	2	3	4	5
Bags of Flour	7	8	9	10	11

19. Using an area model for (10+a) × (20+b) as shown in below, what is the value for the unknown (with the "?" mark) area?

    A 10b   B 20a   C ab   D 200ab

	20	b
10	200	10b
a	20a	?

20. As shown in the drawing, Raymond used similar triangles to find the height of a pole (for similar triangles, the corresponding sides are proportional). When he stood 6.5 feet from a small puddle, he could see the reflection of the top of the pole in the puddle. The puddle was 26 feet from the pole, and Raymond's eye level was 5.5 feet above the ground.
What is the height of the pole in feet?
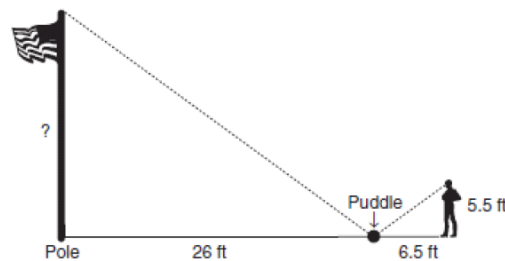
    A 16 feet   B 22 feet   C 24 feet   D 36 feet

21. The table shows how OUT values are related to IN numbers. Which rule tells how to find the OUT number for any IN number, X?

IN	2	3	10	8	20	…	x
OUT	3	5	19	15	39	…	

    A X + 1   B X + 3   C 2 (X-1)   D 2 X - 1

22. Andrew wrote the number 96, 245 on the board. In which number is the value of the digit 4 exactly 10 times the value of 4 in the number Andrew wrote?

        A 681,452   B 462,017   C 246,912   D 124,655

23. Jack puts 1/3 pound of birdseed into his bird feeder every time he fills it. How many times can Jack fill his bird feeder with 5 pounds of birdseed?

        A 1 2/3 (one and two thirds)   B 2 2/3 (two and two thirds)   C 8   D 15

24. Ursula drew a polygon in which all the angels were obtuse. What kind of polygon could she have drawn?

   A trapezoid   B parallelogram   C triangle   D pentagon

25. A school librarian ordered new books for the library. Of the new books ordered, 1/3 are science, 2/5 are biography, and the rest of the books are fiction. What fraction of the books ordered are fiction?

        A 3/5   B 3/8   C 4/15   D 11/15

26. What is the value of the expression $3^2 \cdot (2^3+4)$?

    A 90   B 108   C 120   D 180

27. The model below is shaded to represent an expression.
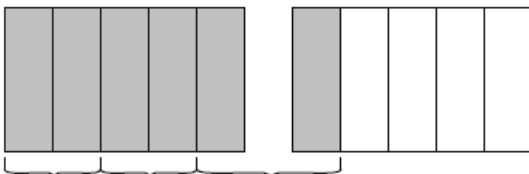
    Which expression represents the model?

    A   1/3 x 2/5   B 1/3 x 5/2   C 3 x 2/5   D 3 x 5/2

28. Which expression has a value that is greater than 42.537?

A $(4 \times 10) + (2 \times 1) + \left(5 \times \frac{1}{10}\right) + \left(9 \times \frac{1}{100}\right) + \left(3 \times \frac{1}{1,000}\right)$

B $(4 \times 10) + (1 \times 1) + \left(6 \times \frac{1}{10}\right) + \left(2 \times \frac{1}{100}\right) + \left(5 \times \frac{1}{1,000}\right)$

C $(4 \times 10) + (2 \times 1) + \left(5 \times \frac{1}{10}\right) + \left(3 \times \frac{1}{100}\right) + \left(7 \times \frac{1}{1,000}\right)$

D $(4 \times 10) + (2 \times 1) + \left(5 \times \frac{1}{10}\right) + \left(1 \times \frac{1}{100}\right) + \left(9 \times \frac{1}{1,000}\right)$

29. Which situation could the expression ¼ ÷ 3 represent?

   A ¼ of a package of pencils shared equally among three friends
   B 3 orders of ¼-cup servings of popcorn
   C 1/3 of a stadium split into four equal sections
   D a four-foot-long rope cut into 3 equal pieces

30. Kate has a coin collection. She keeps 6 of the coins in a box, which is only 5% of her entire collection. What is the total number of coins in Kate's coin collection?

   A 30   B 100   C 120   D 300

31. Side CA of the right triangle CAT is 3cm long. The hypotenuse is 5cm long. How many square centimeters is the area of CAT?

   A 4   B 6   C 7 ½   D 12
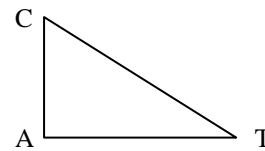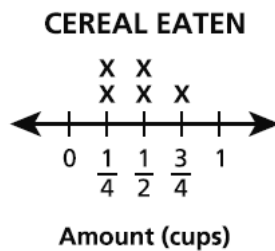

32. How many edges does a rectangular prism have?

   A 12   B 6   C 8   D 11

33. The line plot below shows the amount of cereal Shyanne ate in days.

CEREAL EATEN

Amount (cups)

What is the total number of cups of cereal that Shyanne ate in the 5 days?

   A 1 ½   B 1 ¾   C 1 4/6   D 2 ¼

34. Estimate the square root of 450:   √ 450

    A 200   B 20   C 300   D 30

35. The graph below shows an example of a transformation. Which transformation is shown?
    A Translation   B Reflection in origin   C Rotation   D Dilation
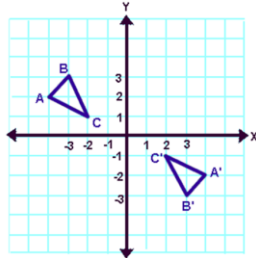
Note. You need to answer 28 questions correctly to pass the exam.

1B	2D	
3D	4.B	5C
6B	7C	8C
9B	10B	11C
12D	13A	14D
15B	16D	17C
18B	19C	20B
21D	22A	23D
24D	25C	26B
27C	28A	29A
30C	31B	32A
33D	34B	35B