

Summer Math Packet

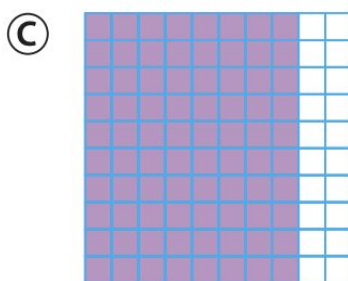
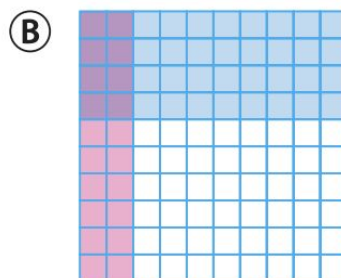
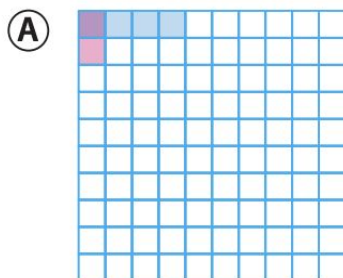
Entering 6th Grade

Please complete the cumulative practice packet. You may turn it into your 5th Grade teacher from the 2023-24 school year in September. You **MUST** show work for the following problems:

3, 4, 7, 8, 10, 13, 15, 16, 18

Cumulative Practice 1-14

1. Which model shows 0.4×0.2 ?



2. A triangle has angle measures of 82° , 53° , and 45° . Classify the triangle by its angles.

- (A) acute (B) equiangular
(C) obtuse (D) right

3. Which expressions have an estimated difference of $\frac{1}{2}$?

☐ $\frac{11}{12} - \frac{7}{8}$

☐ $\frac{9}{10} - \frac{1}{5}$

☐ $\frac{4}{3} - \frac{1}{2}$

☐ $\frac{15}{16} - \frac{4}{9}$

☐ $\frac{5}{4} - \frac{11}{20}$

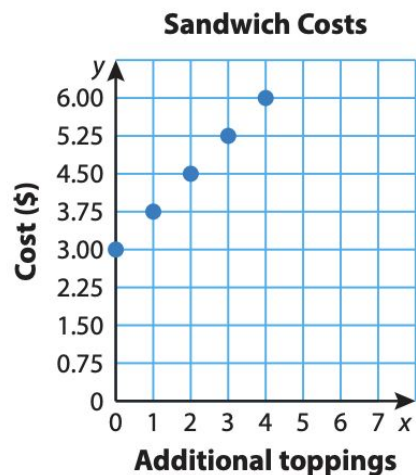
☐ $\frac{1}{8} - \frac{1}{6}$

4. A rectangular prism has a volume of 288 cubic centimeters. The height of the prism is 8 centimeters. The base is a square. What is a side length of the base?

- (A) 6 cm (B) 9 cm (C) 18 cm (D) 36 cm

5. A sandwich at a food stand costs \$3.00. Each additional topping costs the same extra amount. The coordinate plane shows the costs, in dollars, of sandwiches with different numbers of additional toppings. What is the cost of a sandwich with 3 additional toppings?

- (A) \$0.00 (B) \$3.00
(C) \$5.25 (D) \$6.00



6. Which statements are *true*?

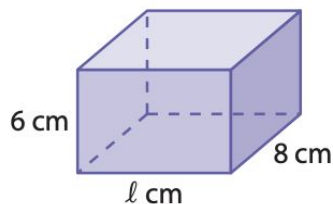
- ☐ All rhombuses are rectangles. ☐ All squares and rectangles are parallelograms.
☐ All squares are rhombuses. ☐ Every trapezoid is a quadrilateral.

7. Your friend makes a volcano for a science project. She uses 10 cups of vinegar. How many pints of vinegar does he use?

- (A) 2 pints (B) 5 pints
(C) 20 pints (D) 40 pints



8. The volume of the rectangular prism is 432 cubic centimeters. What is the length of the prism?



- (A) 9 cm (B) 18 cm
(C) 384 cm (D) 418 cm

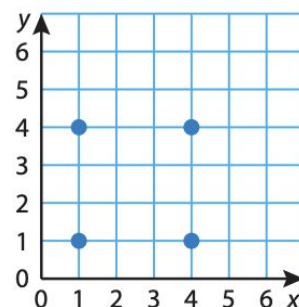
9. Descartes draws a pentagon by plotting another point in the coordinate plane and connecting the points. Which coordinates could he use?

☐ (0, 3)

☐ (2, 4)

☐ (3, 5)

☐ (6, 2)



10. Newton rides to the dog park in a taxi. He owes the driver \$12. He calculates the driver's tip by multiplying \$12 by 0.15. How much does he pay the driver, including the tip?



☐ (A) \$1.80

☐ (B) \$10.20

☐ (C) \$13.80

☐ (D) \$30.00

11. A quadrilateral has four sides with the same length, two pairs of parallel sides, and four 90° angles. Classify the quadrilateral in as many ways as possible.

☐ square

☐ trapezoid

☐ parallelogram

☐ rhombus

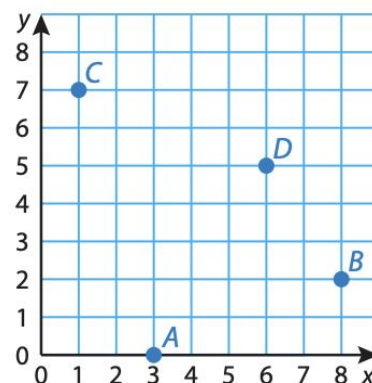
12. Which ordered pair represents the location of a point shown in the coordinate plane?

☐ (A) (0, 3)

☐ (B) (1, 7)

☐ (C) (5, 6)

☐ (D) (2, 8)



13. What is the product of 5,602 and 17?



14. Which pair of points do *not* lie on a line that is perpendicular to the x-axis?

(A) (1, 6) and (1, 8)

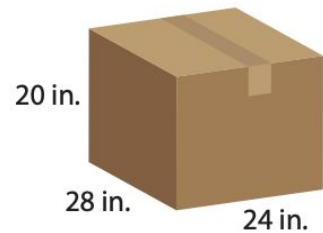
(B) (4, 0) and (4, 4)

(C) (5, 1) and (5, 3)

(D) (7, 2) and (6, 2)

15. Newton has a gift in the shape of a rectangular prism that has a volume of 10,500 cubic inches. The box he uses to ship the gift is shown.

Think
Solve
Explain



Part A What is the volume of the box?

Part B What is the volume, in cubic inches, of the space inside the box that is *not* taken up by the gift? Explain.

16. Which expressions have a product greater than $\frac{5}{6}$?

☐ $\frac{5}{6} \times \frac{7}{8}$

☐ $\frac{5}{6} \times \frac{1}{3}$

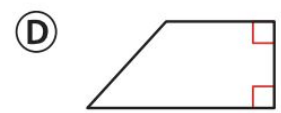
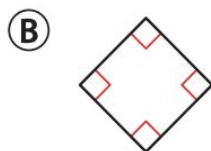
☐ $\frac{5}{6} \times \frac{9}{9}$

☐ $\frac{5}{6} \times \frac{3}{2}$

☐ $\frac{5}{6} \times \frac{4}{5}$

☐ $\frac{5}{6} \times 1\frac{3}{4}$

17. Newton is thinking of a shape that has 4 sides, only one pair of parallel sides, and angle measures of 90° , 40° , 140° , and 90° . Which is Newton's shape?



18. Which rectangular prisms have a volume of 150 cubic feet?

☐ length = 2 ft, height = 25 ft, width = 3 ft ☐ length = 50 ft, height = 50 ft, width = 50 ft

☐ length = 3 ft, height = 10 ft, width = 5 ft ☐ length = 6 ft, height = 5 ft, width = 5 ft