

Grade 7

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2020 Summer Packet



Here's what to do:

- Print out each packet
- Work on each one throughout the summer
- Show all of your work right on the packet (Do not use a separate sheet of paper)
- Bring your packets with you on the first day of school in August

*****Calculators are NOT allowed, unless only used to check your work!*****

There might be questions in the packets that you do not know how to do; credit will be given if you showed you tried!

Remember...if you need a little extra help, you can visit these websites!

<https://login.i-ready.com/>

<https://www.tenmarks.com>

<http://www.floridastudents.org>

<https://www.reflexmath.com>

<http://interactivesites.weebly.com/math.html>

Keep working hard & enjoy your summer vacation!
See you in August!

INTEGERS

Add.

1. $(-3) + (-7) = \underline{\hspace{2cm}}$

2. $(-30) + 9 = \underline{\hspace{2cm}}$

3. $42 + (-45) = \underline{\hspace{2cm}}$

4. $(-55) + (-7) = \underline{\hspace{2cm}}$

5. $3 + (-6) + 12 = \underline{\hspace{2cm}}$

6. $(-9) + (-6) + (-15) = \underline{\hspace{2cm}}$

Subtract.

1. $15 - (-3) = \underline{\hspace{2cm}}$

2. $(-7) - 1 = \underline{\hspace{2cm}}$

3. $(-14) - (-6) = \underline{\hspace{2cm}}$

4. $3 - (-4) = \underline{\hspace{2cm}}$

5. $(-1) - 6 - (-9) = \underline{\hspace{2cm}}$

6. $21 - (-12) - 12 = \underline{\hspace{2cm}}$

Multiply or divide.

1. $(-4) \bullet (-10) = \underline{\hspace{2cm}}$

2. $86 \bullet (-6) = \underline{\hspace{2cm}}$

3. $(-52) \div 13 = \underline{\hspace{2cm}}$

4. $164 \div (-4) = \underline{\hspace{2cm}}$

5. $(-5) \bullet (-13) \bullet (-4) = \underline{\hspace{2cm}}$

6. $204 \div (-3) \bullet (-7) = \underline{\hspace{2cm}}$

Find each absolute value.

1. $|-15| = \underline{\hspace{2cm}}$

2. $|11 - 14| = \underline{\hspace{2cm}}$

3. $|-5,187| = \underline{\hspace{2cm}}$

4. $|(-43) \bullet (-8)| = \underline{\hspace{2cm}}$



Challenge Problem!

Evaluate.

1. $[2 + (-4)] + 5 - [(-11) \bullet (-2)] - (-7) = \underline{\hspace{2cm}}$

NUMBER PATTERNS, EXPRESSIONS, & EQUATIONS

Write the next three terms of the pattern.

1. 100, 91, 82, 73, ... _____, _____, _____

2. 2, 9, 16, 23, ... _____, _____, _____

3. 1, 1, 2, 3, 5, 8, ... _____, _____, _____

Solve.

1. $x - 7 = 86$

2. $7 + 3y = 22$

3. $5b = 60$

4. $\frac{f}{6} = 30$

5. $7w + 3 = 52$

6. $5x - 7 = 118$

Evaluate for the given value.

1. $4x - 5$, for $x = 7$

2. $(a \div b)^2 + (a \bullet b)$, for $a = 77$ & $b = 11$

3. $\frac{50 - x}{y - 3}$, for $x = 5$ & $y = 6$

4. $(b - c)^2 \cdot (b + c)$, for $b = 9$ & $c = 3$

Evaluate each expression.

1. $(2 + 1)^4 \div 9 - 4 =$ _____

2. $(5 \cdot 3 \cdot 2) - (63 \div 7) =$ _____

3. $\frac{3}{4} \cdot 4 + 6^2 \div 9 =$ _____

4. $[(9 - 7)^5 + 17] \div (7) =$ _____

Translate each statement into an expression or equation.1. Five more than a number x . _____2. A number x less seventeen. _____3. The product of sixty and a number x is thirty. _____**Find the GCF or LCM for each.**

1. The GCF of 24 & 32 is _____.

2. The LCM of 12 & 16 is _____.

3. The GCF of 18, 30, & 60 is _____.

4. The LCM of 3, 12, & 15 is _____.

Write the prime factorization of each number.1. $54 =$ _____2. $57 =$ _____

FRACTIONS/DECIMALS/PERCENTS

Use $>$, $<$, or $=$ to compare each pair of numbers.

1. $\frac{7}{8}$ _____ 0.82

2. -0.63 _____ $-\frac{5}{8}$

3. $1\frac{4}{5}$ _____ $\frac{21}{12}$

4. $-3\frac{1}{4}$ _____ $-3\frac{6}{25}$

5. $\frac{15}{27}$ _____ $\frac{16}{24}$

6. $\frac{8}{25}$ _____ 0.32

Write each percent as a decimal and as a fraction/mixed number in lowest terms.

	Decimal	Fraction/Mixed Number
1.	82% _____	_____
2.	60% _____	_____
3.	8% _____	_____
4.	135% _____	_____

Order each group of numbers from least to greatest. Write your answer on the line.

1. $0.7, 0.\bar{7}, \frac{3}{4}, \frac{7}{8}$

2. $-2\frac{2}{3}, -2\frac{2}{5}, -2.1, -2.25$

Challenge Problem!



Complete the statement using $>$, $<$, or $=$.

1. 25% of 80 _____ 125% of 12

FRACTION OPERATIONS

Add, subtract, multiply, or divide. All answers must be in fraction/mixed number form.

1. $7\frac{3}{11} - 4\frac{13}{33} = \underline{\hspace{2cm}}$

2. $5\frac{9}{20} + 1\frac{3}{5} = \underline{\hspace{2cm}}$

3. $7\frac{3}{5} - \frac{4}{5} = \underline{\hspace{2cm}}$

4. $\left(\frac{3}{8}\right) + \left(\frac{9}{20}\right) = \underline{\hspace{2cm}}$

5. $4 \cdot \frac{3}{5} = \underline{\hspace{2cm}}$

6. $\frac{3}{8} \div \frac{7}{12} = \underline{\hspace{2cm}}$

7. $\left(6\frac{3}{16}\right) \cdot \left(3\frac{1}{5}\right) = \underline{\hspace{2cm}}$

8. $15 \div \left(4\frac{1}{6}\right) = \underline{\hspace{2cm}}$

DECIMAL OPERATIONS

Add, subtract, multiply, or divide. All answers must be in decimal form.

1. $0.1465 + 0.28 = \underline{\hspace{2cm}}$

2. $13.87 - 6.8412 = \underline{\hspace{2cm}}$

3. $(7.039) \cdot (0.04) = \underline{\hspace{2cm}}$

4. $(4.844) \div (0.56) = \underline{\hspace{2cm}}$

5. $11.57 - 9.283 = \underline{\hspace{2cm}}$

6. $(1.4678) + (21.564) = \underline{\hspace{2cm}}$

7. $(9.767) \cdot (4.089) = \underline{\hspace{2cm}}$

8. $(37.41) \div (4.3) = \underline{\hspace{2cm}}$

DATA & PROBABILITY

Find the mean, median, mode, and range for each set of data. Then display the data in a stem-and-leaf plot.

1. 30, 38, 42, 38, 17

Mean_____ Median_____ Mode_____ Range_____

2. 518, 581, 508, 588, 580

Mean_____ Median_____ Mode_____ Range_____

Find the probability.

1. A bag contains 5 red, 6 blue, 7 yellow, and 8 purple marbles. What is the probability that you randomly choose a marble that is purple?

2. The spinner at the right is divided into equal parts. What is the probability that the pointer lands on:

- A prime number? _____
- An even number? _____
- The number 5? _____



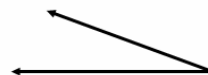
GEOMETRY & MEASUREMENT

Write your answer on the line.

1. What is the approximate measure of this angle? _____



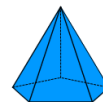
2. What kind of angle is this? _____



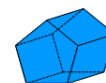
3. If $\angle 1$ measures 56° , what is its complement? _____

4. If $\angle 1$ measures 56° , what is its supplement? _____

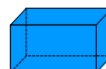
5. How many faces does this figure have? _____



6. How many vertices does this figure have? _____

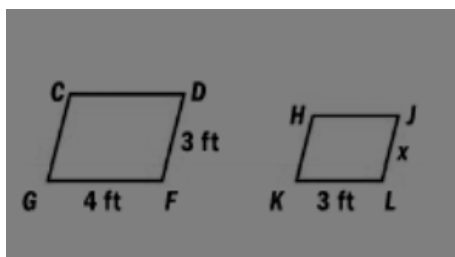


7. How many edges does this figure have? _____



In the following diagram, $CDFG \sim HJLK$. Use this information to find the value of x .

1. $x =$ _____



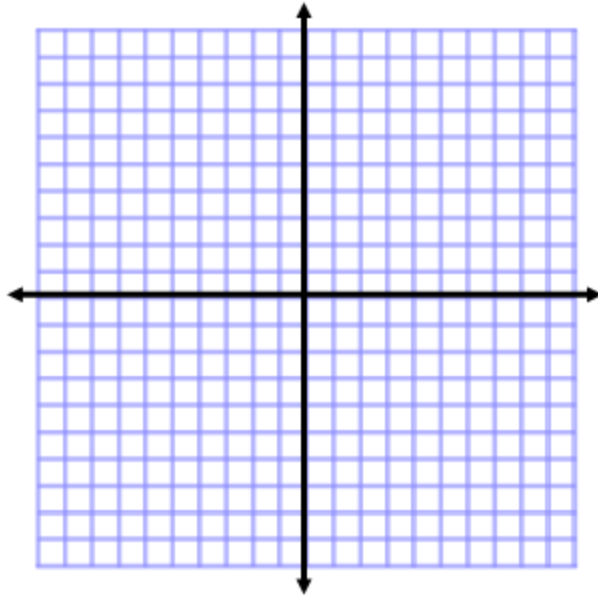
Name the quadrant or place in which each point lies.

1. $(-4, -2)$ _____ 2. $(0, -7)$ _____ 3. $(0, 0)$ _____

4. $(6, -9)$ _____ 5. $(3, 5)$ _____ 6. $(8, 0)$ _____

Graph and label (with letters) these figures on the same plane.

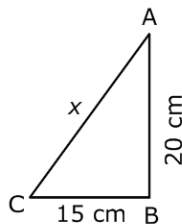
1. PQRS: P(-2,4), Q(-5,4), R(-8,0), S(-2,0)
TUVW: T(4,8), U(8,8), V(8,0), W(4,0)
ABC: A(0,-3), B(0,-7), C(-6,-7)



Challenge Problem!

Find the length of the missing side of this right triangle.

1.



RATIOS, PROPORTIONS, & PERCENTS

Find the unit rate.

1. $\frac{\$56}{8\text{lbs}} = \underline{\hspace{2cm}}$

2. 7 phone calls in 2 hours = $\underline{\hspace{2cm}}$

Write the ratio as a fraction in simplest form.

1. 65 to 130 = $\underline{\hspace{2cm}}$

2. $\frac{18}{63} = \underline{\hspace{2cm}}$

Solve each proportion by cross-multiplying.

1. $\frac{20}{x} = \frac{16}{5}$

2. $\frac{y}{22} = \frac{11}{5.5}$

3. $\frac{3.6}{3} = \frac{b}{14.4}$

Find each value.

1. 40% of 25 is what number? $\underline{\hspace{2cm}}$

2. 18 is 75% of what number? $\underline{\hspace{2cm}}$

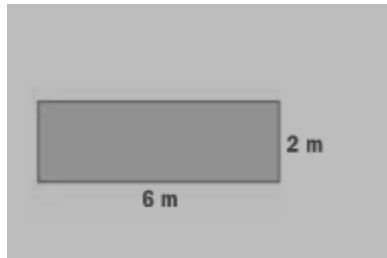
3. What percent of 600 is 180? $\underline{\hspace{2cm}}$

4. The cost of a meal is \$35.27 and you leave an 18% tip. What is the total cost of the meal? Round to the nearest cent. $\underline{\hspace{2cm}}$

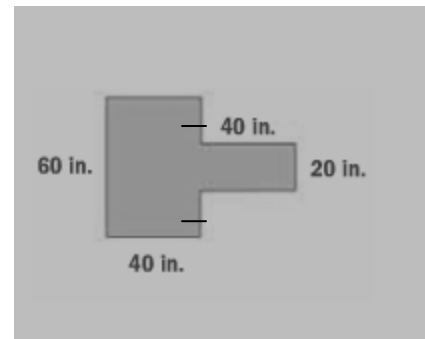
PERIMETER, AREA, & VOLUME

Find the perimeter of each polygon.

1.

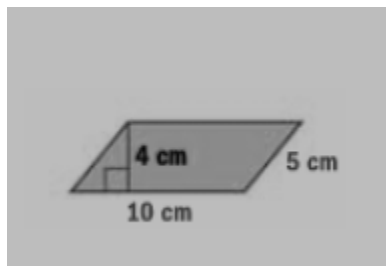


2.

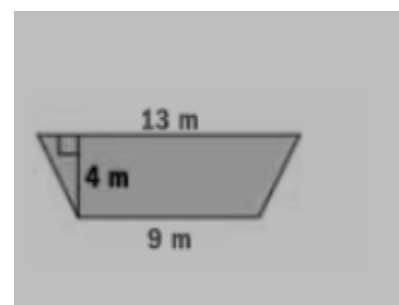


Find the area of each polygon.

1.

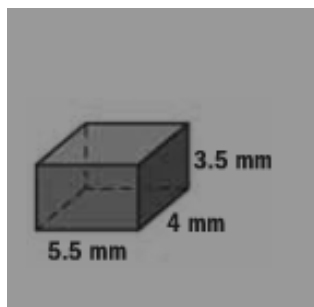


2.

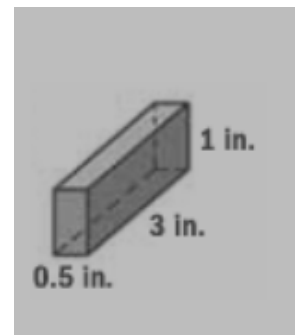


Find the volume of each figure.

1.



2.



TIME & CUSTOMARY UNITS

Use the box to the right to convert.

1. 10yd = _____ in
2. 35oz = _____ lb _____ oz
3. 6c = _____ fl oz
4. 3mi = _____ yd

Customary Units of Measure

Length	Weight	Capacity
1 ft = 12 in.	1 lb = 16 oz	1 c = 8 fl oz
1 yd = 3 ft = 36 in.	1 ton = 2000 lb	1 pt = 2 c
1 mi = 1760 yd = 5280 ft		1 qt = 2 pt
		1 gal = 4 qt

Choose an appropriate unit of measurement from the box.

1. a slice of bread _____
2. a soccer ball _____
3. the length of a paper clip _____
4. the width of a door _____
5. the distance from your home to Florida _____

Yard	Foot
Mile	Ounce
Cup	Pound
Gallon	Pint
Quart	Ton
Inch	

Find the time.

1. You have to catch the bus at 11:15am for a movie! It takes you twenty minutes to shower and dress, fifteen minutes to eat breakfast, and ten minutes to walk to the bus stop. By what time should you get up?

2. You and your family attend a Broadway show in New York City. The show begins at 6:58pm and ends at 9:46pm. How many seconds long is the show?

3. Your friend moves away for three years and fifty-five days. How many days is this?
