Entering 7th Grade Math

Customary Conversions

1 foot = 12 inches
1 yard = 3 feet
1 mile = 5,280 feet
1 mile = 1,760 yards

1 cup = 8 fluid ounces
1 pint = 2 cups
1 quart = 2 pints
1 gallon = 4 quarts

1 pound = 16 ounces
1 ton = 2,000 pounds

Metric Conversions

1 meter = 100 centimeters
1 meter = 1000 millimeters
1 kilometer = 1000 meters

1 liter = 1000 milliliters

1 gram = 1000 milligrams
1 kilogram = 1000 grams

Time Conversions

1 minute = 60 seconds
1 hour = 60 minutes
1 day = 24 hours
1 year = 365 days
1 year = 52 weeks

Formulas

$A = bh$

$A = lw$

$A = \frac{1}{2}bh$

$A = \frac{1}{2}h(b_1 + b_2)$

$V = Bh$

$V = \frac{1}{3}Bh$

$SA = Ph + 2B$

$SA = \frac{1}{2}P\ell + B$

Topics:

1. Operations with Fractions
2. Proportions
3. Similar Figures word problems
4. Evaluating Expressions
5. Inequalities (Solving & Graphing)

6. Area of Polygons

7. Surface Area of Solids

8. Volume of Solids

Suggested websites to review these topics:

http://www.virtualnerd.com/middle-math/all

https://www.khanacademy.org/math

http://www.teachertube.com/

http://mathisfun.com/

Summer Mathematics Project for Entering Grade 7

Show ALL your work.

1- Operations with Fractions

1) $2\frac{1}{2} - \frac{5}{3}$

2) $3\frac{3}{5} + 2\frac{1}{6}$

3) $\frac{7}{8} \times \frac{2}{3}$

4) $\frac{3}{5} \div \frac{9}{5}$

5) $1\frac{5}{6} \times \frac{9}{11}$

6) $1\frac{7}{9} \div 7$

2- Proportions

7) $\frac{18}{3} = \frac{xx}{6}$

8) $\frac{nn}{5} = \frac{14}{9}$

3- Similar Figures Word Problems

9) A map has a scale of 6 in : 26mi. If Clayton and Clinton are 52 mi apart, then they are how far apart on the map?

10) A model train has a scale of 5 in : 3 ft. If the model train is 30 in tall, then how tall is the real train?

11) A particular train is 25 ft tall. A model of it was built with a scale of 4 in : 5ft. How tall is the model?

4- Evaluating Expressions

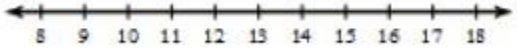
12) $\frac{xx}{4}(2 + yy - xx)$; use *x* = 4 and *y* = 6

14) $3mm - \frac{2mm}{2} + \frac{nn}{3}$; use *m* = 5 and *n* = 6

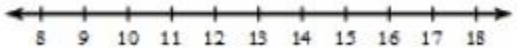
13) $\frac{pppp + aa^2}{6}$; use *a* = 7 and *p* = 6

5- Solving Inequalities

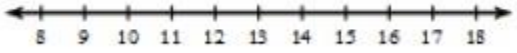
15) $1\frac{1}{6} \leq \frac{xx}{10}$



16) $20 < kk + 11$



17) $6vv > 54$

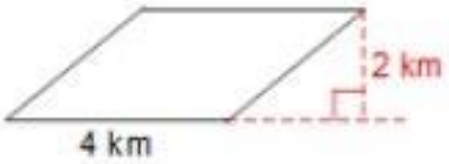


18) $8 \geq \frac{m}{2}$

6- Area of Polygons

Find the area of each figure. Round to the nearest tenth.

19)



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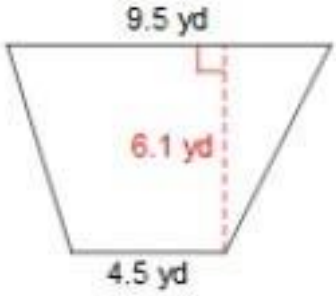

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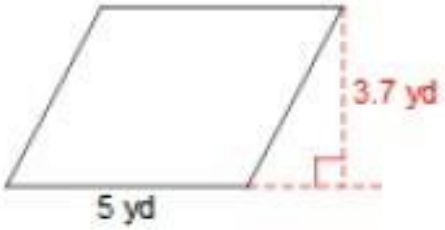

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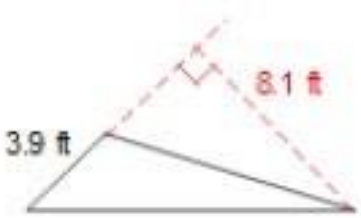

7- Surface Area of Solids

Find the surface area of each solid. Round to the nearest tenth.

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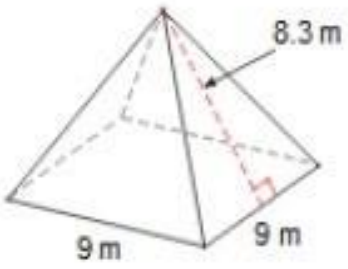

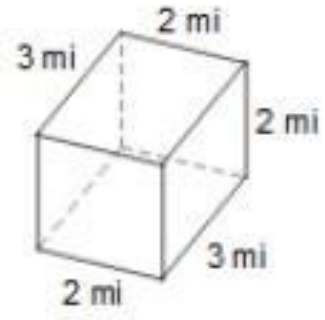

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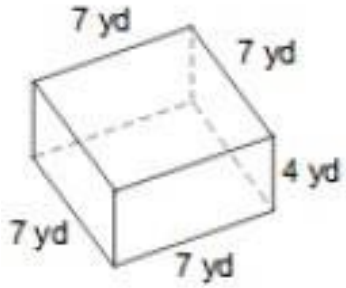

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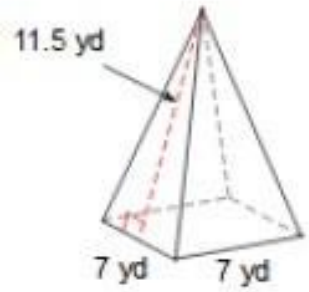

8- Volume of Solids

Find the volume of each solid. Round to the nearest tenth.

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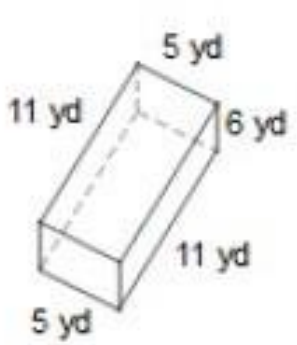

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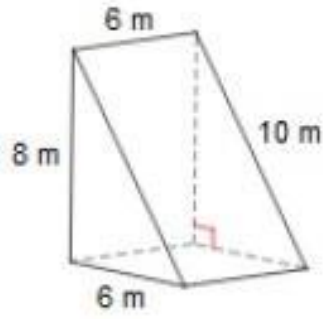

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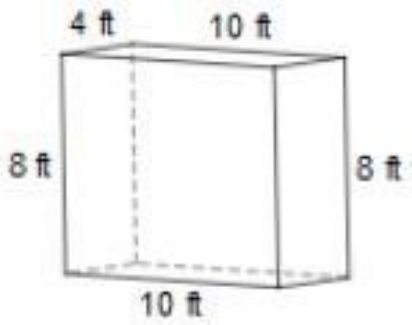

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