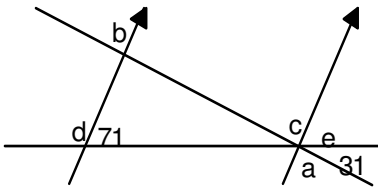


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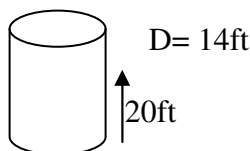
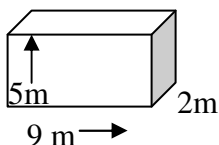
SUMMER PACKET FOR ENTERING ADVANCED 8 MATH
DO ALL WORKINGS ON A SEPARATE PIECE OF PAPER

Simplify or solve:

- (a) $500 \div -20 - 85 \cdot 5 + 90$
- (b) $10 \cdot 4^{-4}$
- (c) $80x - (-25x - 70y) - 10y$
- (d) $\left[\frac{324x^9}{18x^8} \right]^2, x=7$
- (e) $100 - (40y - 45) + 30y < 20$
- (f) $-20 > -50 - \frac{y}{2}$ (**Graph your solution**)
- (g) (i) $9 \frac{1}{2} + 12 \frac{3}{5} + 5 \frac{1}{15}$ (ii) $5 \frac{5}{6} \times 2 \frac{4}{7}$
- (h) Find the angles at a, b, c, d, e . Note each rule you use.



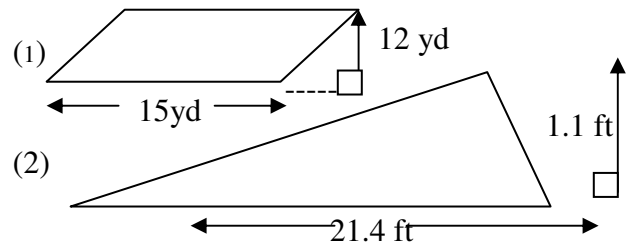
- (i) Sue can choose from 3 appetizers, 3 main meals and 3 desserts. Draw a tree diagram to find the number of different choices of meals she can have?
- (j) $^{-}5 \frac{5}{11} \div 1 \frac{5}{7}$
- (k) $44 \frac{3}{11} - 20 \frac{7}{8}$
- (l) Write as a percent and a decimal: (i) $2 \frac{5}{9}$
- (m) Use algebra to write as a fraction: **0.12**
- (n) Write as a proportion. Then solve:
 - (i) 32% of the 40 students had pizza. How many had pizza?
 - (ii) 30 represents 41% of what amount?
 - (iii) What percent of 440 is 120?
 - (iv) 45 is x% of 78
- (o) Write as an equation. Then solve: **15% of x is 21.** (Round to the nearest tenth of a percent if needed)
- (p) What is the percent of change if 37 points increases to 79?
- (q) Graph the following inequality:
 $y < 2.5x - 3$
- (q) Find the surface area of:
 - (i) a cone with a diameter of 20 m and slant height of 30m.
 - (ii) a square based pyramid with a base whose side is 5 m and slant height is 20 m.
 - (iii) a cube whose side measures 70 ft.
- (r) Find the Volume of the following:



SOLVE

- (a) You had a \$5.20 discount. The discount was 13% of the bill. What was the original price?
- (b) Write the proportion, then solve.
 128 oz for \$7. x pounds for \$11.
- You must write the rule for each of the following, then solve.**
- (c) Find the interest on \$11,000 for 180 days if the bank charges 1 % interest.
- (d) Find the total amount existing on \$4,000 in an account that pays 2% interest compounded semiannually after 1 year.
- (f) What is the new price on \$341 item after a 11% markup?
- (g) Find the x-intercept, y-intercept, and slope for (i) $y - 1 = 2x$ (ii) (1,3) (2,4) **Sketch the graph**
- (h) Given these two points, write the linear equation: (i) (-2, -1), (0,-5) (ii) (-2,5), (-3, 9)
- (i) The diameter of a circle is 612 yd. Find the (1)Radius(2)Circumference (3) Area (**pi=3.14**)
- (j) Find the area of the following:

You must write the rule for each of the following, then solve. $\pi = \frac{22}{7}$



Find the shaded area.

