A/B #11

View Passage 1

Tree Species in U.S. Forests (2002)

Tree name	Genus	Species	Percent of all trees	Number of trees (billions)
Douglas-Fir	Pseudotsuga	menziesii	3.5%	9.9
Loblolly Pine	Pinus	taeda	6.6%	19
Ponderosa Pine	Pinus	ponderosa	0.9%	4
Red Maple	Acer	rubrum	7.6%	21.8
Northern Red Oak	Quercus	rubra	2.4%	6.3
Lodgepole Pine	Pinus	contorta	2.5%	7.1
White Oak	Quercus	alba	1.9%	5.5
Sugar Maple	Acer	saccharum	3.1%	8.9

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Use the table to answer the question.

Which trees make up less than 3% of all trees in the U.S. Forest and have the same genus?

- Loblolly Pine, Ponderosa Pine, Lodgepole Pine
- Northern Red Oak, White Oak
- Red Maple, Sugar Maple
- White Oak, Northern Red Oak, Lodgepole Pine

Tree names

*same genus

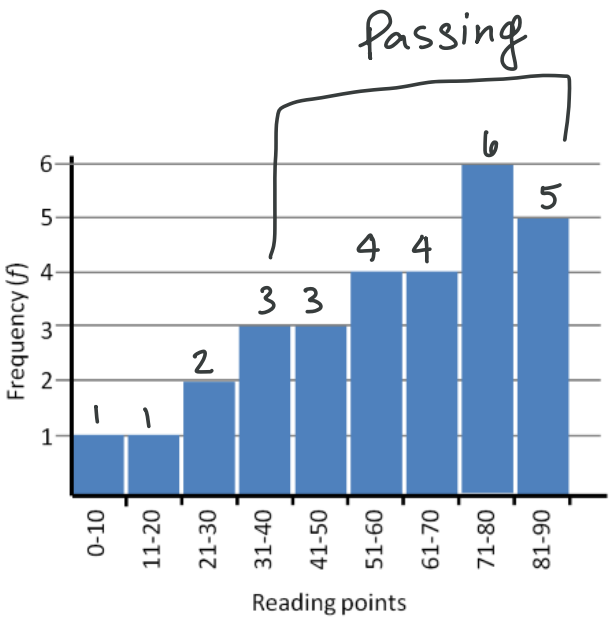
- Establish the relevant information
  - Tree name, Genus, % of all trees
- Focus only on the rows of the chart that have less than 3% for the '% of all trees' column
  - Ponderosa, N. Red Oak, lodgepole, white oak
- Use process of elimination as you check each answer option

A/B #18

Students in a reading class took a reading comprehension test. A passing score is 31 points or higher. The bar graph shows the test results.

Which statement is true?

- ○ 11 students earned 70 points or higher
- ○ 7 students did not pass
- ○ The average score was 45 points
- ○ 29 students took the test



"11 students earned 70 pts or higher" FALSE

- Note: This is true for 71 pts or higher, but we cannot say how many students earned exactly 70 pts.

"7 students did not pass" FALSE

- Passing is a score of 31 pts or higher. Therefore, anything less than 31 pts (0 pts to 30) is failing
- If we count the # of students who scored between 0-30 pts, we have 4 students

"The average score was 45 points" FALSE

- we need the exact score for each student to calculate the avg., which we do not have

✓ "29 students took the test" TRUE

- If we add up the amount of students in each bar on the graph, we have 29 students

C/D #12

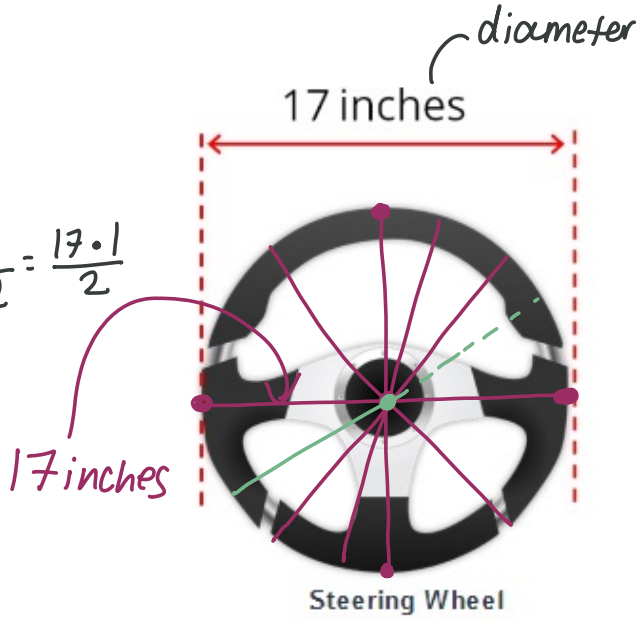
What is the radius of the steering wheel?

- ○ 7 inches
- ○ 8.5 inches
- ○ 4.25 inches
- ○ 17 inches

$d = 17$ inches

$r = \frac{17}{2}$ or $17 \cdot \frac{1}{2} = \frac{17 \cdot 1}{2}$

$r = 8.5$



* Circles, radius, diameter

diameter : 17 inches

radius = diameter ÷ 2 = $\frac{17}{2}$ = 17 ÷ 2 = 8.5

$d = 2r$

$r = \frac{d}{2}$

$d = 17$, $r = 8.5$

$d = 8.5 \times 2 = 17$

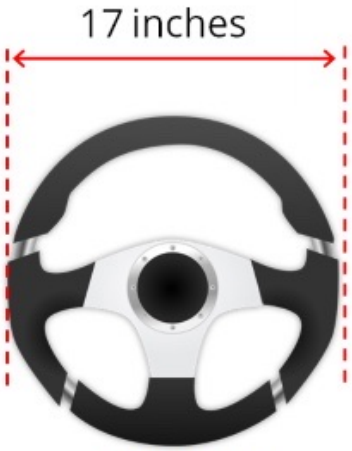
$d = r \times 2 = 2r$

C/D #13

Which calculation equals the circumference of the steering wheel?

Use $\pi = 3.14$

- ○ $3.14(8.5)^2$ inches
- ○ 3.14(34) inches
- ○ 3.14(8.5) inches
- ○ 3.14(17) inches



Steering Wheel

$d = 2r = d$

$2 \cdot r = \frac{d}{2} \cdot 2 = \frac{d \cdot 2}{2} = d \cdot \frac{2}{2} = d \cdot 1 = d$ [* mult. of fractions & whole numbers]

$4 \cdot 2 = 8$

$4^2 = 4 \cdot 4 = 16$

Circumference " length of the outline of the circle"

$\pi = 3.14$

$r = 8.5$

$C = \pi r^2$

$= \pi (8.5)^2$

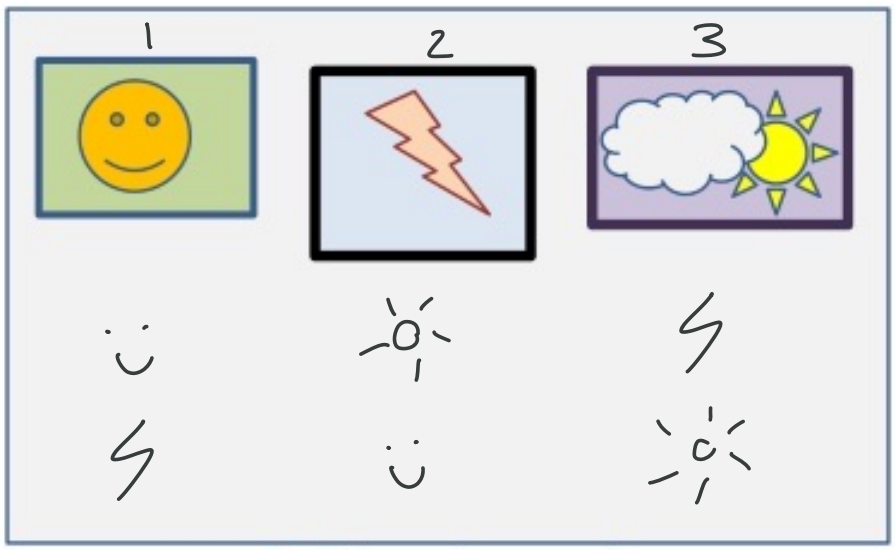
$= 3.14 (8.5)^2$

*irrational number

$d = r \cdot 2$

$r = \frac{d}{2} \cdot 2$ $= \frac{1}{2}$ of $d = \frac{1}{2} \cdot \frac{d}{1} = \frac{1}{2} \cdot d = \frac{1 \cdot d}{2}$

C/D #11



Paintings along a wall

#1

#2

#3

. . .

#6

Combinations ↓

$3 \cdot 2 \cdot 1 = 6$

$4 \cdot 3 \cdot 2 \cdot 1 = 24$

$4 \cdot 6 = 24$ ✓