

7th Grade Varsity Practice Problems

1. The points A, B, C, D, and E are located on a straight line in order.
 - The distance from A to E is 20cm.
 - The distance from A to D is 15cm.
 - The distance from B to E is 10cm.
 - C is halfway between B and D.

What is the distance from B to C?

2. If \$1 Canadian = 80 cents, then \$1 U.S. = ? Canadian.
3. George, Sam, Andrew and Brandon each had four dates to four different Parish Center Dances with four different girls, named Cher, Connie, Melissa and Kendra. On the second date, George dated Connie and Brandon dated Kendra. On the third date, Andrew went out with Melissa and Sam went out with Connie. Melissa went out with George and Cher went out with Sam on the fourth date. What couples went out together on the first date if no pairs went out more than once?
4. What is the sum of the reciprocals of all of the factors of 24 (in simplest form)?
5. Pat the Cat runs at 5m/sec and skates at 8 m/sec. How far can Pat the Cat skate in the same time it takes Pat the Cat to run 80 m?
6. Increasing \$100 by a certain percent produces the same result as decreasing 300 by the same percent. What percent is this?
7. Kevin received a new bike for his birthday with huge tires that have an 11-inch radius. What is the minimum number of complete revolutions each tire would need to do for Kevin to ride his bike 100 yards?
8. The measures of the angles of a quadrilateral are in the ratio of 1:2:3:4. What is the measure of the smallest angle of the figure?
9. The speed of light is 3×10^8 meters per second. What is the speed of light in miles per hour? Round to the nearest million.
(1 meter = 1.094 yards and 1,760 yards = 1 mile)

10. Farmer Joe has a pumpkin patch with 360 pumpkins that he is harvesting for Halloween. However, there is a problem with some of the pumpkins. Every third pumpkin is too small. Every fourth pumpkin is rotten. Every fifth pumpkin is misshapen. How many perfect pumpkins does Farmer Joe have to sell?

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1. 2.5 cm
2. \$1.25
3. George and Cher, Brandon and Melissa, Andrew and Connie, Sam and Kendra
4. $2\frac{1}{2}$ or 2.5
5. 54 meters
6. 50%
7. 53 revolutions
8. 36 degrees
9. About 671,000,000 mph
10. 144 perfect pumpkins