Sum up the News – January 23rd, 2017

Vocabulary

1. If a line is reflected across the y-axis, then line and its image will have that slopes that are _____.

      A. opposites

      B. reciprocals

      C. opposite reciprocals

      D. equal

2. F(x) is a function that always increases as x increases, and which is always positive. If the domain of F(x) is all real numbers, then F(x) could be a _____ function.

      A. Linear

      B. power

      C. cubic

      D. exponential

3. Triangle FGH is a right triangle and has side lengths of f, g and h, in increasing order. Cosine of $\angle F$ is equal to g / h. Which of the following are equal to g / f?

      A. sin $\angle F$

      B. cos $\angle G$

      C. tan $\angle F$

      D. tan $\angle G$

Based on the article "Asia's piles of gadget garbage threaten health, environment" on page A10 of the Monday, January 16th, Seattle Times.

4. Across East Asia, waste from electronic products is piling up, causing severe environmental problems as the rare earth elements used in cell phones and tablets can contaminate the water and soil. In 5 years the amount of waste produced each year increased by 2/3rds to a total 12.3 million tons in 2015. The problem is partly due to the people of those countries purchasing many more electronics per capita than they did in decades past and partly due to electronics being sent to the region for recycling. On average how much electronic waste was each of the countries producing in 2010?

    A. 615,000 tons

    B. 683,000 tons

    C. 708,000 tons

    D. 7.38 million tons

5. If the growth in electronic waste in these countries is exponential and it has continued growing at the same rate, then how much waste would there have been in 2016?

    A. 13.3 million tons

    B. 13.6 million tons

    C. 13.9 million tons

    D. 14.1 million tons

Based on the article "Education Lab IQ: How we got this far behind in school funding" on page B1 of the Tuesday, January 17th, Seattle Times.

6. In 1977, prior to levy cap, levies made up 30% of school funding. After the levy cap they dropped to just 8% of total school funding. If the state's contribution to school funding didn't change, what percentage of the old levies were the new levies?

    A. 20%

    B. 24%

    C. 27%

    D. 30%

7. Examine the graph titled "Local taxes increasing" on page B2. If F is the percentage of funding from levies and y = years since 1991, then for the 20 years beginning in 1991, which of the following equations best models the percentage of school funding that came from local levies?

      A. F = 0.32Y + 11.9

      B. F = 0.36 + 12.5

      C. F = 0.375Y + 11.9

      D. F = 0.39Y + 11.9

8. Examine the graph titled "Local taxes increasing" on page B2. In 1995, total state funding for the public schools of Washington State was $8.32 billion. How much money came in through levies that year?

      A. $1.4 billion

      B. $3.9 billion

      C. $9.7 billion

      D. $59 billion

Based on the article "CHASING STILES" on page C1 of the Sunday, January 22nd, Seattle Times.

9. UW basketball player Kelsey Plum is well on her way to breaking the NCAA record for career points scored. Plum has scored 3,041 points, 352 fewer than Stiles did. This season she is scoring an average 31.2 points per game and at that pace will break Stiles record in the opening game of the PAC-12 tournament after the end of the team's regular season. How many games left does UW have before the PAC-12 opener?

      A. 10 games

      B. 11 games

      C. 12 games

      D. 13 games

10. Given their record, the UW will play a maximum of three games in the PAC-12 tournament and then will enter the NCAA women's tournament. The NCAA tournament starts with 64 teams and after each round of games half the teams are eliminated. If UW plays in every possible game in the two tournaments and Plum maintains her scoring average, by how many points would Plum break the scoring record?

        A. 259 more points

        B. 280 more points

        C. 292 more points

        D. 303 more points