

Sum up the News – October 5th, 2015

Vocabulary

1. In the expression $kx^2 + 2k^2x + 3k^2$, where k is some positive integer, the greatest common factor of the first two terms is

- A. k
- B. k^2
- C. kx
- D. kx^2

2. A graph on the coordinate plane relates the position of an object and the time. If the graph is increasing and linear, with position on the y-axis, then the slope of the equation for the line would equal the object's _____

- A. ending position
- B. average speed
- C. starting position
- D. acceleration

3. Line \overline{GH} is perpendicular both to line \overline{FG} and to line \overline{HJ} . If one of the following lines were drawn as well, which one would not be a transversal?

- A. \overline{FH}
- B. \overline{GJ}
- C. \overline{HG}
- D. \overline{JH}

Based on the article “Seattle company books SpaceX rocket launch” on page A8 of the Wednesday, September 30th, Seattle Times.

4. The Falcon 9 rocket can carry a payload of 14 tons. Spaceflight charges \$5 million to lift 330 pound satellites and \$28 million to lift 1-ton satellites. How much more would Spaceflight be able to charge if they filled their 2017 Falcon mission entirely with 330-pounds satellites than if they filled it with 1-ton satellites?

- A. \$2.3 million
- B. \$32 million
- C. \$322 million
- D. \$424 million

5. The price Spaceflight charges for a satellite is not directly proportional to the weight of the satellite. If price and weight are linearly related, then which of the following equations provide the best model for the cost, Y , of a satellite weighing X pounds?

- A. $Y = 13,800X + 455,000$
- B. $Y = 14,000X + 380,000$
- C. $Y = 14,200X - 330,000$
- D. $Y = 15,200X - 2,300,000$

6. While Spaceflight used to simply arrange for its clients satellites to fly on others rockets, it now has bought its own. The total cost to the company for the rocket and for configuring the satellites in the cargo bay for the mission will be \$100 million. If Spaceflight was only lifting satellites that weighed 100 kilograms, what is the minimum weight they would need to lift in order to pay for the mission? (1 kg \approx 2.2 pounds)

- A. 5500 pounds
- B. 6000 pounds
- C. 6400 pounds
- D. 6800 pounds

7. Spaceflight has said that the weight capacity of the 2017 mission is already 80% and that as of now 20 satellites will be on board. What is the average price that the satellites are paying to be lifted into orbit?

- A. \$10.1 million
- B. \$15.9 million
- C. \$17.3 million
- D. \$19.8 million

Based on the article “Man swims length of Duwamish, finds it’s still alive” on page A1 of the Thursday, October 1st, Seattle Times.

8. During Powell’s 18 swims in the Duwamish he covered 55 miles. How many kilometers was the average length of Powell’s swims? (1 mile \approx 1609.34 meters)

- A. 4.9 km
- B. 6.7 km
- C. 8.1 km
- D. 4900 km

9. Just 60% of the 177 acres of active cleanup areas will involve actual dredging up of contaminated material. The total volume of the contaminated material being removed is expected to be 960,000 cubic yards. How deep will the dredging be on average? (1 acre = 43,560 square feet)

- A. 7 inches
- B. 1 foot 9 inches
- C. 3 feet 1 inch
- D. 5 feet 7 inches

Sum Up the News is posted to the Web on Tuesdays. Please share the NIE program with other teachers. To sign-up for the electronic edition of the newspaper please call 206/652-6290 or toll-free 1-888/775-2655.

Copyright © 2015 The Seattle Times Company