MAT 0002 AND MAT 0020 STUDY GUIDE

2012-2

1. ADD. 3846 + 527
2. DIVIDE. 58[1508]
3. SUBTRACT. 12,807 – 11,679 =?
4. HEINZ KETCHUP USED 115 TRUCKLOADS OF TOMATOES.
   EACH TRUCK HELD 8 TONS OF TOMATOES. HOW MANY TONS
   OF TOMATOES WERE USED?

5. ADD. 3/7 + 2/5
6. MULTIPLY AND SIMPLIFY. 3 ¾ x 2 1/5
7. SUBTRACT. 2 1/6 – 1 1/3
8. MIKE’S HONDA CIVIC HYBRID TRAVELED 250 MILES ON 6
   GALLONS OF GAS. HOW MANY MILES PER GALLON DID HE
9. MULTIPLY. 51.06 x 0.307

10. DIVIDE. 0.026[0.0884]

11. THE GARLIC BUTTER FRENCH BREAD LOAF WAS 24.375 INCHES LONG. PAULA ABDUL SHORTENED IT BY EATING 4.75 INCHES OF IT. HOW LONG WILL THE GARLIC BUTTER FRENCH BREAD LOAF BE WHEN IT’S SHORTENED?

12. RANDY MOSS OF THE OAKLAND RAIDERS RAN 20.5 MILES ON MONDAY, 5.8 MILES ON TUESDAY, AND 14.9 MILES ON WEDNESDAY. HE DRANK GATORADE XTREME FRUIT PUNCH AFTER EVERY RUN. HOW MANY MILES DID HE RUN ON
THOSE THREE DAYS?

13. ROUND TO THE NEAREST TENTH:
   \[ \frac{3}{7} = \frac{N}{24} \]. SOLVE FOR N.

14. ROUND TO THE NEAREST TENTH:
   \[ \frac{0.5}{0.8} = \frac{220}{N} \]. SOLVE FOR N.

15. IN N OUT BURGER IN PASADENA, CALIFORNIA, EARNED $600 FOR SELLING 250 DOUBLE DOUBLE CHEESEBURGERS DURING LUNCH. AT THIS RATE, HOW MUCH WOULD THE FAST FOOD JOINT EARN FOR SELLING 500 BURGERS?

16. SAN JOSE AND LOS ANGELES ARE ACTUALLY 300 MILES APART, BUT APPEAR TO BE 8 INCHES APART ON A ROAD MAP. HOW MANY MILES APART ARE TWO CITIES THAT APPEAR TO
BE 6 INCHES APART ON THE MAP?

17. CHANGE TO A PERCENT: 3/8
18. 138% OF 5600 IS WHAT NUMBER?
19. AT CAL BERKELEY 53% OF THE STUDENTS ARE WOMEN. THERE ARE 35,206 WOMEN AT THE COLLEGE. HOW MANY STUDENTS ARE AT THE COLLEGE?

20. AT KELLOGS CEREAL IT WAS DISCOVERED THAT 9 OUT OF EVERY 15,000 BOXES OF COUNT CHOCULA HAD A DEAD COCKROACH. WHAT PERCENT OF COUNT CHOCULA BOXES
HAD DEAD COCKROACHES?

21. 15 QT = _____ GAL
22. 3 CM = _____ METER
23. 1.56 TONS _____ LB
24. 4900 KG = _____ MILLIGRAMS

25. FIND THE AREA OF A TRIANGLE WITH A BASE OF 34 METERS AND AN ALTITUDE OF 23 METERS.
26. FIND THE COST TO INSTALL GLASS ON A TABLE WITH A RADIUS OF 5 FEET AT A COST OF $35 PER SQUARE FOOT.
27. IN A RIGHT TRIANGLE THE LONGEST SIDE IS 15 METERS AND THE SHORTEST SIDE IS 9 METERS. WHAT IS THE LENGTH OF THE OTHER SIDE OF THE TRIANGLE?

28. HOW MANY POUNDS OF GRAPE JELLY BEANS CAN BE PLACED IN A CYLINDRICAL TANK THAT IS 4 FEET TALL AND HAS A RADIUS OF 5 FEET IF ONE CUBIC FOOT OF GRAPE
29. KONA MOUNTAIN BIKES IN HONALULU, HAWAII SOLD BIKES IN 2006:
   JANUARY – 5,208
   FEBRUARY – 6,301
   MARCH – 7,002
   WHAT IS THE MEAN NUMBER OF MOUNTAIN BIKES SOLD IN THE 1ST QUARTER OF 2006?

30. -5 + (-2) + (-8) =?
31. -8 – (-20) =?
32. (-3/4) / (5/6) =?
33. (-3)(2)(-1)(-3) =?
34. 9(X + Y) -3(2X – 5Y)
35. 3X – 7 = 5X – 19. SOLVE FOR X.
36. 2(X – 3) + 4X = -2(3X +1). SOLVE FOR X.
37. A rectangle has a perimeter of 134 meters. The length of the rectangle is 4 meters longer than double the width of the rectangle. What is the length and the width of the rectangle?