Calculator Test 11
2010 - 2011

11. $(33\%)\left(\frac{4}{5}\right)(4851.007) = 1280$

12. $(899.99 + 449.97 + 199.99)(1.0825) = \$1677.82$

13. $\left(\frac{1}{25}\right)\left(\frac{1}{36}\right)\left(\frac{1}{49}\right) = 2.27\ x\ 10^{-5}$

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24. $(4)(247.89)(31) = \$30738.36$

25. $d = s\sqrt{2}$
$s = \frac{d}{\sqrt{2}}$
$s = \frac{34.78}{\sqrt{2}}$
$s = 24.6$

26. $SA = 2\left[(.89)(1.29) + (1.29)(3.33) + (.89)(3.33)\right]$
$= 16.8$

---

35. 299792458
343.2 *%CHG key*
−100

36. $3(x + \pi) = -x + 5$
$3x + 3\pi = -x + 5$
$4x = 5 - 3\pi$
$x = \frac{5 - 3\pi}{4}$
$x = -1.11$

37. $P = 2(L + W)$
$P = 2L + 2W$
$2W = P - 2L$
$W = \frac{P - 2L}{2}$
$W = \frac{2435 - 2(918.6)}{2}$
$W = 299$

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38. $A = \pi r_1 r_2$

$= \pi\left(\frac{221}{2}\right)\left(\frac{516}{2}\right)$

$= 89600$

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47. Distance Formula $= \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$

$= \sqrt{(-12 - -6)^2 + (18 - 8)^2}$

$= \sqrt{36 + 100}$

$= 11.7$

48. $x = \frac{(8)(3.50) + 57.50}{8}$

$= \$10.69$

49. Semi-perimeter $= \frac{1.64 + 7/9 + \sqrt{1.64^2 - (7/9)^2}}{2}$

$= 1.93$

50. Put calculator in radian mode

$\cos\theta = \frac{Adjacent}{Hypotenuse}$

$\theta = \cos^{-1}\frac{451}{1117}$

$\theta = 1.16$

Put calculator in degree mode

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59. $P(\text{drawing winning ticket}) = \frac{20}{1020}$

$= .0196$

60. $(36)(36)(36)(36)(36)(36)(36) = (36)^7$

$= 7.84\ x\ 10^{10}$

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61.
$$SA = (2020)(1010) - 14(\pi r^2)$$
$$= (2020)(1010) - 14\left(\pi\left(\frac{2020}{12}\right)^2\right)$$
$$= 7.94\ x\ 10^5$$

62. Law of Sines
$$\frac{a}{\sin a} = \frac{b}{\sin b}$$
$$\frac{501}{\sin a} = \frac{877}{\sin 123}$$
$$(\sin a)(877) = (\sin 123)(501)$$
$$\sin a = \frac{(\sin 123)(501)}{877}$$
$$a = \sin^{-1}\frac{(\sin 123)(501)}{877}$$
$$a = 28.6$$

71. Discriminate of
$4.5x^2 - \sqrt{7}x + 17 = 0$
is
$b^2 - 4ac$
$$\left(-\sqrt{7}\right)^2 - (4)(4.5)(17) = 7 - 306 = -299$$

72.
$$TSA = 3\pi r^2$$
$$= 3\pi\left(\frac{392}{2}\right)^2$$
$$= 362000$$

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73. Place caculator in radian mode

$$SA = \frac{nb^2}{4\tan\left(\frac{\pi}{n}\right)} - \frac{s^2\sqrt{3}}{4}$$

$$= \frac{(5)(6.6)^2}{4\tan\left(\frac{\pi}{5}\right)} - \frac{(6.6)^2\sqrt{3}}{4}$$

$$= 56.1$$

Place caculator in degree mode

74.

$$d = s\sqrt{3}$$

$$= \sqrt[3]{V}\sqrt{3}$$

$$= 10.7$$