

Calculator Test 3
2010 - 2011

11.
$$A = \frac{bh}{2}$$
$$= \frac{(23.9)(58.1)}{2}$$
$$= 694$$

12. Use the kg-lb conversion key on the calculator.

$$20 \text{ kg} = 44.1 \text{ lb}$$

13.
$$\text{Range} = \text{highest} - \text{lowest}$$
$$= 67.8 - -45.9$$
$$= 114$$

24.
$$(80)(45\%) = 36 \text{ missed problems}$$
$$400 - (9)(36) = 76$$



$$A_{\text{Square}} = s^2$$
$$45 = s^2$$
$$\sqrt{45} = s$$

$$A_{\text{Rectangle}} = LW$$
$$45 = 3sW$$
$$\frac{45}{3s} = W$$
$$\frac{45}{3\sqrt{45}} = W$$
$$2.24 = W$$

26.
$$\frac{9.12}{2190} \times 100 = .416$$

35.
$$(.4343)(1.8989)(2.277) = 1.88$$

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36. 1×80
 2×40
 4×20
 5×16
 8×10
Sum of these numbers = 186

37. $A = bh$
 $= (79.2)(36.7)$
 $= 2910$

38. $A = \frac{\pi r^2}{4}$
 $= \frac{\pi (.007)^2}{4}$
 $= 3.85 \times 10^{-5}$

47. $\frac{389 \text{ miles}}{7\frac{3}{4} \text{ hours}} = 50.2 \text{ mph}$

48. $(6500(128\%(128\%(128\%(128\%)))) =$
 $(6500(1.28(1.28(1.28(1.28)))) =$
 $6500(1.28)^4 = 17448.30$

49. $x = \sqrt{68.2^2 - 52.8^2}$
 $= 43.2$

50. $\tan \theta = \frac{\text{Opposite}}{\text{Adjacent}}$
 $\tan 36 = \frac{2.83}{x}$
 $1 = \frac{2.83}{\tan 36}$
 $x = 3.90$

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59. $m = \text{slope}$
$$m = \frac{y_2 - y_1}{x_2 - x_1}$$
$$= \frac{1 - 0}{5 - 0}$$
$$= .200$$

60. $P(\text{pear}) = \frac{1}{21}$
$$= .0476$$

61. $V = \frac{Bh}{3}$
$$= \frac{s^2h}{3}$$
$$= \frac{(74.6^2)(81.1)}{3}$$
$$= 150000$$

62. Place calculator in radian mode.

$$A = \frac{nb^2}{4 \tan\left(\frac{\pi}{n}\right)}$$
$$= \frac{(5)(2.211)^2}{4 \tan\left(\frac{\pi}{5}\right)}$$
$$= 8.41$$

Place calculator back in degree mode.

71. $3(x+1) + x = 47$
$$3x + 3 + x = 47$$
$$4x + 3 = 47$$
$$4x = 44$$
$$x = 11$$

72. $I = prt$
$$57 = (1050)r\left(\frac{11}{12}\right)$$
$$r = \frac{57}{(1050)\left(\frac{11}{12}\right)} \times 100$$
$$r = 5.92$$

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73.
$$\begin{aligned} \text{Clear Area} &= A_{\text{Square}} - A_{\text{Circle}} \\ &= s^2 - \pi r^2 \\ &= (7.89)^2 - (\pi) \left(\frac{7.89}{2} \right)^2 \\ &= 13.4 \end{aligned}$$

74.
$$\begin{aligned} s &= \frac{a+b+c}{2} \\ &= \frac{11+13+15}{2} \\ &= 19.5 \end{aligned}$$

$$\begin{aligned} A &= \sqrt{s(s-a)(s-b)(s-c)} \\ &= \sqrt{19.5(19.5-11)(19.5-13)(19.5-15)} \\ &= 69.6 \end{aligned}$$