

Calculator Test 2  
2010 - 2011

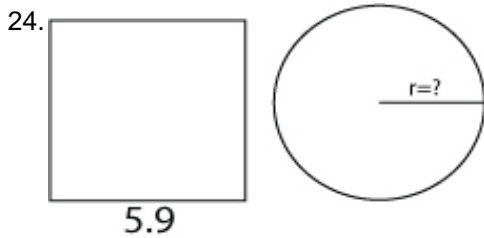
11.  $x = 50 - [4(2.97) + 12.57 + 4.59 + 4(2.39)]$   
 $= \$11.40$

12. Use calculator conversion key

$$12^{\circ} F = -11.1^{\circ} C$$

13.  $\frac{500 \text{ miles}}{1.5 \text{ miles}} = 333.3 \text{ laps}$   
*334 laps must be completed to run a 500 mile race*

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$$A_{\text{square}} = A_{\text{circle}}$$
$$s^2 = \pi r^2$$
$$5.9^2 = \pi r^2$$
$$\frac{5.9^2}{\pi} = r^2$$
$$\sqrt{\frac{5.9^2}{\pi}} = r$$
$$3.33 = r$$

25.  $\frac{13}{3} = \frac{78}{x}$   
 $13x = (3)(78)$   
 $x = 18$

26.  $x = \pi - \frac{22}{7}$   
 $x = .00126$

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35.  $x = \frac{\left(7 + \frac{1}{7}\right)(-7)}{\sqrt{7}}$   
 $x = -18.9$

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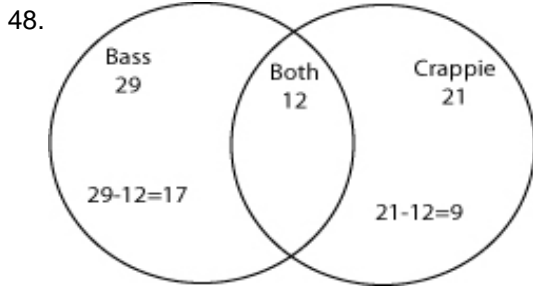
36. Use calculator to convert 2 liters to gallons, and then divide by 1 and multiply by 100.  
Ans: 52.8%

37. 
$$A = \pi r^2$$
$$= \pi \left( \frac{333}{2} \right)^2$$
$$= 87100$$

38. 
$$A = \frac{h(b_1 + b_2)}{2}$$
$$= \frac{.102(.174 + .357)}{2}$$
$$= .0271$$

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47.  $\text{Log } 539^{594} = 594 \text{ Log } 539$   
 $= 1622.56372652\dots$   
*In the answer blank, write  $\times 10^{1622}$  in answer blank*  
*Subtract 1622*  
*.56372652 should now be on the display*  
*Push the  $10^x$  key*  
**Ans:  $3.66 \times 10^{1622}$**



$$\frac{17}{38} = 44.7\%$$

49. 
$$x = \sqrt{.0045^2 - .001^2}$$
$$= .00439$$

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50. 
$$\cos \theta = \frac{\text{Adjacent}}{\text{Hypotenuse}}$$

$$\cos 62 = \frac{5.77}{x}$$

$$x = \frac{5.77}{\cos 62}$$

$$x = 12.3$$

59. 
$$\frac{72.5 \text{ miles}}{1 \text{ hour}} \times \frac{5280 \text{ feet}}{1 \text{ mile}} \times \frac{1 \text{ hour}}{3600 \text{ sec}} = 106 \text{ fps}$$

60. 
$$15 \times 14 \times 13 = 2730$$

61. 
$$V = \frac{4}{3} \pi r^3$$

$$= \left(\frac{4}{3}\right)(\pi)(3298)^3$$

$$= 1.50 \times 10^{11}$$

62. 
$$TA = A_{\text{rhombus}} + A_{\text{2 triangles}}$$

$$= \frac{d_1 d_2}{2} + 2 \left( \frac{bh}{2} \right)$$

$$= \frac{(48.6)(19.6)}{2} + (24.3)(9.8)$$

$$= 714$$

71. 
$$\text{Dimes} = x$$

$$\text{Quarters} = x + 19$$

$$.1(x) + .25(x + 19) = 7.90$$

$$.1x + .25x + (.25)(19) = 7.90$$

$$.35x = 7.9 - (.25)(19)$$

$$x = \frac{7.9 - (.25)(19)}{.35}$$

$$x = 9$$

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72. Number of diagonals in polygon =  $\frac{n(n-3)}{2}$   
Polygon with 14 sides =  $\frac{14(14-3)}{2}$   
Number of diagonals = 77

73.  $TA = A_{\text{Equilateral Triangle}} + A_{\text{Square}}$   
 $= \frac{s^2\sqrt{3}}{4} + s^2$   
 $= \frac{7895^2\sqrt{3}}{4} + 7895^2$   
 $= 8.93 \times 10^7$

74.  $SA = A_{\text{Square}} - A_{\text{4Circles}}$   
 $= s^2 - 4\pi r^2$   
 $= .0505^2 - 4\pi \left(\frac{.0505}{4}\right)^2$   
 $= .000547$