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11. $\left[4(7.99)+98.50+18.95\right](.85)(1.0825)=\$137.48$

12. $Faces: 2+n$
$Edges: 3n$
$Vertices: 2n$

Octagonal prism has 8 + 2 faces = 10

13. LCM of 18 and 81 is 2x3x3x3x3=162
GCF of 81 and 81 is 9
Product is 162 x 9 = 1458

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24. $SA = 6\left(8\sqrt{7}\right)^2$
$= 2690$

25. $\frac{600 \text{ yetos}}{5 \text{ hours}} = \frac{x}{48 \text{ hours}}$
$5x = (600)(48)$
$x = \frac{(600)(48)}{5}$
$x = 5760$

26. $(90-2)+(180-32)=(88)(148)=236$

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35. $15000(1.1025)=\$16537.50$

36. $1 \text{ m}^3 = 1000 \text{ dm}^3 = 1000000 \text{ cm}^3$
$523 \text{ m}^3 = 523000 \text{ dm}^3 = 523000000 \text{ cm}^3$
$1000 \text{ cm}^3 = 1 \text{ liter}$
So,
$523 \text{ m}^3 = 523000 \text{ liters}$

37. $C = 2\pi r$
$= 2\pi(4.19)$
$= 26.3$

38. $A = \frac{d_1 d_2}{2}$
$= \frac{(23)(67)}{2}$
$= 771$

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47. $3x-8=9x+2$
$9x+2=3x-8$
$6x=-10$
$x=-\frac{10}{6}$
$x=-1.67$

48. $\frac{8(57.6)+12(123.6)}{20}=x$
$x=97.2$

49. $x=\sqrt{22.87^2-10.09^2}$
$=20.5$

50. $\tan\theta=\frac{\text{Opposite}}{Adjacent}$
$\frac{\tan 27^o}{1}=\frac{x}{5671}$
$x=(\tan 27^o)(5671)$
$x=2890$

59. Have to multiply x by 2 to be sure that it even.
1st odd integer = 2x+1
Next odd integer = 2x+3
$5(2x+3)-6(2x+1)=21$
$10x+15-12x-6=21$
$-2x+9=21-9$
$-2x=12$
$x=-6$
So,
$2x+1=$
$2(-6)+1=$
$-12+1=-11$

60. $\frac{580\ miles}{110\ mph}=5.27\ hours$
$(5.27\ hours)(50\ mph)=264\ miles$

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61. $TSA = 2\pi r^2 + Ch$
$= 2\pi r^2 + 2\pi rh$
$= \left[2\pi(22.1)^2\right] + \left[2\pi(22.1)(34.9)\right]$
$= 7910$

62. $V = \frac{bh}{2}(L)$
$= \frac{(111)(222)}{2}(555)$
$= 6.84\ x\ 10^6$

71. $Fred = 6\ days$
$Jack = 5\ days$
$David = 4\ days$
$Together = ?$

$Fred = \frac{1}{6}\ day$
$Jack = \frac{1}{5}\ day$
$David = \frac{1}{4}\ day$
$Together = ?$

$\frac{1}{6} + \frac{1}{5} + \frac{1}{4} = \frac{10}{60} + \frac{12}{60} + \frac{15}{60}$
$= \frac{37}{60}\ per\ day$
$\frac{1}{t} = \frac{37}{60}$
$t = \frac{60}{37}$
$t = 1.62$
$(\text{t means together})$

72. $\frac{60\,\text{sec}}{13\,\text{sec}}\ x\ 360^o = 1660^o$

73. $\frac{a}{\sin a} = \frac{b}{\sin b}$

$\frac{103.9}{\sin 126^o} = \frac{59.1}{\sin x^o}$

$(\sin x^o)(103.9) = (\sin 126^o)(59.1)$
$\sin x^o = \frac{(\sin 126^o)(59.1)}{(103.9)}$
$x^o = \sin^{-1}\frac{(\sin 126^o)(59.1)}{(103.9)}$
$x^o = 27.4^o$

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74.
$$SA = A_{Square} - A_{Triangle} - A_{Semi-circle}$$
$$= s^2 - \frac{bh}{2} - \frac{\pi r^2}{2}$$
$$= 291^2 - \frac{(206)(206)}{2} - \frac{\pi\left(\frac{291}{2}\right)^2}{2}$$
$$= 3.03\ x\ 10^4$$