Chiles mini mu
Prealgebra - ocean and Atmosphere

SOLUTIONS

① $(12+8)-0+3$
$20+3=23$ B

② Bob $5\cdot 3=15$ inches
Zec $3\cdot 3=9$ inches
$15-9=6$ inches C

③ $m=\frac{2-1}{4-(-3)}=\frac{1}{7}$ B

④ $5S-5-7=4S+32$
$5S-12=4S+32$
$S=44$ C

⑤ Linda $\sqrt{65}\approx 8.1$
Joseph $4^2=16$
Marshall 8.9
Bob $3\cdot 9=27$ D

⑥ $\frac{1}{2}-\frac{1}{3}=\frac{3}{6}-\frac{2}{6}=\frac{1}{6}$ A

⑦ D

⑧ $\frac{60}{100}=\frac{6}{10}=\frac{3}{5}$ C

⑨ $4^2+4^3=16+64=80$ A

⑩ Joyce B

⑪ $0=3x-7$
$7=3x$
$\frac{7}{3}=x$ E

⑫ $-\frac{4}{7}\cdot-\frac{3}{4}x\leq -12\cdot-\frac{4}{3}$
$x\geq 16$ D

⑬ $92.50 \times .08 = \$7.40$
$92.50 + 7.40 = \$99.90$ C

⑭ $5-4=3(1)+b$
$1=3+b$
$-2=b$ C

⑮ $y+z=28$
$y-z=4$
$2y=32$
$y=16$
$z=12$
$\frac{16}{12}=\frac{4}{3}$ B

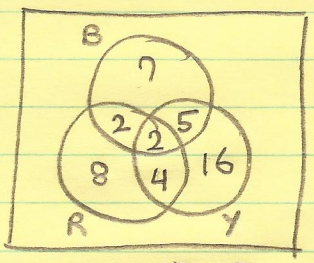
⑯ 1.0035×10^{-6} C

⑰ $4!=256$ A

⑱ $\frac{5!\,4!}{6\cdot 5!}=\frac{4\cdot 3\cdot 2\cdot 1}{6}=4$

$\frac{8\cdot 5\cdot 4!\,2\cdot 1}{4!\cdot 2\cdot 1}=10$
$10-4=6$ inches D

⑲



C

$7+2+2+5+8+4+16=44$

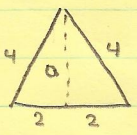
⑳ $C=2\pi r=16\pi \rightarrow r=8$
$A=\pi r^2=\pi(8)^2=64\pi$
A

㉑ $C=4\pi \rightarrow r=2$
$\frac{8}{2}=4\rightarrow 400\%$ A

(22) A - true
B - false, 70%
C - false, they are independent of each other
D - true
$(1.41)(4.58) = 6.4578$
$\rightarrow 6.46$ D

(23) smallest prime = 2
$n+n+2+n+4+n+6+n+8=175$
$5n + 20 = 175$
$5n = 155$
$n = 31$
$n+8 = 39$
$\frac{2+39}{2} = \frac{41}{2} = 20.5$ B

(24) $6.5x = 14.3$
$x = 2.2$ C

(25) 

$a^2 = 4^2 - 2^2$
$a^2 = 16 - 4$
$\sqrt{a^2} = \sqrt{12}$
$a = 2\sqrt{3}$
$A = \frac{1}{2} \cdot 4 \cdot 2\sqrt{3} = 4\sqrt{3}$ D

(26) $V = lwh$
$= 15 \cdot 12 \cdot 11$
$= 1980$ A

(27) $(15 \cdot 12 \cdot 2) + (15 \cdot 11 \cdot 2) + (12 \cdot 11 \cdot 2)$
$360 + 330 + 264$
954 C

(28) $15 \cdot 1.2 = 18$
$12 \cdot 1.2 = 14.4 \rightarrow 14$
$11 \cdot 1.2 = 13.2 \rightarrow 13$
$(18)(14)(13) = 3276$ B

(29) increases are 1, 4, 9, 16, 25, 36 - perfect squares The next increase is 49.
$92 + 49 = 141$ C

(30) D