Chiles Mini Mu
12/12/2009

Charlie and the Great Glass Elevator Solutions

1 $56 \cdot \frac{1}{4} = 14$ broken $56 - 14 = 42$ remain [C]

2 $3\text{ft} \cdot \frac{12\text{in}}{1\text{ft}} = 36\text{in} + 6\text{in} = 42\text{in}$ [C]

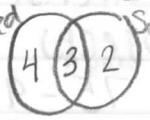
$\frac{1}{2}\text{ft} \cdot \frac{12\text{in}}{\text{ft}} = 6\text{in}$

3 $73\text{ min} = 1\text{hr } 13\text{min}$

$8:49 + 1\text{hr } 13\text{min} = 10:02\text{ p.m.}$ [C]

4 $150\text{ rooms} \cdot .8 = 120\text{ rooms} \cdot \$40 = \$4{,}800$ [B]

5 $2 \cdot 4 = 8 \cdot 4 = 32 \cdot 4 = 128$ [E]

6 

$12 - (4+3+2) = 3$ [C]

7 $\frac{n^2}{\frac{1}{2}n} = 12 \quad n^2 = 6n \quad n = 6$ [B]

8 $P = 2(12) + 2(15)$
$= 54$ [C]

9 $650 \cdot \frac{6}{13} = 300$ girls $650 - 300 = 350$ boys [D]

10 $100 - 45 = 55\%$ remains $\frac{11}{20} = 55\%$ [A]

11 $\frac{16+7+13+7+12+5}{6} = 10$ [B]

12 $\frac{6 \times (8+13+5\times10)}{(42-36)\times(74-69)} = \frac{6\times(21+50)}{(6)\times(5)} = \frac{6\times(71)}{30} = \frac{71}{5}$ [B]

13 $\frac{54}{4} = 13\frac{1}{2}$, $\frac{13}{5} = 2\frac{3}{5}$, $\frac{82}{9} = 9\frac{1}{9}$, $\frac{38}{14} = 2\frac{5}{7}$, $\frac{153}{27} = 5\frac{2}{3}$ [A]

14 $60 \times 1.5 = \$90$ sold $90 - 30 = \$60$ profit [C]

$60 \times .5 = \$30$ cost

15 $8.25 + 1.02 + .64 + 15.73 = 25.64$

$30.00 - 25.64 = \$4.36$ [A]

16

1	2	3	4	5
~~Sarah~~	~~Sarah~~	~~Sarah~~	~~Sarah~~	~~Sarah~~
~~Shuyao~~	~~Shuyao~~	Shuyao	~~Shuyao~~	~~Shuyao~~
~~Joseph~~	Joseph	~~Joseph~~	~~Joseph~~	~~Joseph~~
William	~~William~~	~~William~~	~~William~~	~~William~~
~~Hannah~~	~~Hannah~~	~~Hannah~~	~~Hannah~~	Hannah

[D]

17 4:00 start $\overset{+13}{\rightarrow}$ 4:13, $\overset{+3}{\rightarrow}$ 4:16, $\overset{+38}{\rightarrow}$ 4:54, $\overset{+16}{\rightarrow}$ 5:10, $\overset{+2}{\rightarrow}$ 5:12, $\overset{+21}{\rightarrow}$ 5:33 **D**

18 first digit: $\frac{198167}{5} = 3973$ R 2

second digit: 2

last four: 13(M) · 1(A) · 20(T) · 8(H) = 2080

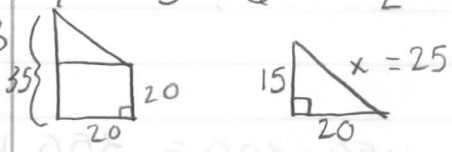
222080 **C**

19 $\frac{\frac{1}{22} \times (5+17)}{\frac{1}{22} \times (14+30)} = \frac{\frac{1}{22} \times (22)}{\frac{1}{22} \times (44)} = \frac{1}{2}$ **A**

20 4 crayons + 2 pens = 6 writing utensils = $\frac{6}{15}$ total objects $= \frac{2}{5}$ **C**

21 day 1: $91 - 1 = 90$; day 2: $90 - 3 = 87$; day 3: $87 - 5 = 82$; day 4: $82 - 7 = 75$; day 5: $75 - 9 = 66$; day 6: $66 - 11 = 55$; $55 - 13 = 42$ **B**

22 $\frac{21}{7} = 3 \div 6 = \frac{1}{2} \cdot 4 = 2 - 1 = 1$ **B**

23 

$A_{\triangle} = \frac{1}{2}(15)(20)$

$= 150$

$A_{\square} = 20 \cdot 20$

$= 400$

$A_{total} = 150 + 400 = 550$ **C**

24 $225 - (6) - (104) - (89) = 26$ **B**

25 $\frac{1}{12} = \frac{30}{360}$

$\frac{11}{30} = \frac{132}{360}$ +

$\frac{2}{9} = \frac{80}{360}$ +

$\frac{7}{40} = \frac{63}{360}$

$= \frac{305}{360}$ $\quad \frac{360}{360} - \frac{305}{360} = \frac{55}{360} = \frac{11}{72}$ **B**

26 factors of 18: 1, 2, 3, 6, 9, 18 **C**

factors of 36: 1, 2, 3, 4, 6, 9, 12, 18, 36

factors of 42: 1, 2, 3, 6, 7, 14, 21, 42

27 $90 + (40) + (190) + (4) = 324$ **E**

28 7, 14, 21, 28, 35, 42, 49, 56, 63, 70, 77, 84, 91, 98 14 numbers **D**

29 2, 3, 5, 7, 11, 13 **A**

30 $8 \cdot \frac{7}{8} = 7$ bars **E**