# PROBLEM SOLVING ASSESSMENT(PSA)2014 <br> CODE- 094P-E_D3 

## DATE: 20-112014

## HINTS \& SOLUTIONS

43. 


$17+y=x$
$42-x=y+1$
from $1 \& 2 y=12$ and $x=29$


Answer is 60
44. (1) $26=7 \times 3+5$ possible
(2) $19=7 \times 2+5$ possible
(3) $23 \quad$ Not possible
(4) $54=7 \times 7+5$ possible

So the option (3) is correct
45. 600

510
420
330
240
150
060
Seven number can be found
46. $20,20,20$

25, 25, 10
50, 5, 5
15, 25, 20
Four ways
47.


In triangle $A B C$
$A C=\sqrt{A B^{2}+B C^{2}}$
$=\sqrt{24^{2}+10^{2}}=26$
48. QPRUTSV
49. $3 \times 8 \div 2+5-8$
$12+5-8=17-8=9$
50. Year 2002
$30-17=13$ (i.e. maximum difference between gold and bronz medal)
51. The number at the thumb that we get is of the form $8 n+1$. so
$105=13 \times 8+1$
105 will be at the thumb so at $D$ we get 108
52. $10 s=2 a$
$\mathrm{a}=2 \mathrm{~b}$
$4 b=1 m$
$1 \mathrm{~m}=4 \mathrm{~b}=4 \times \frac{1}{2} \mathrm{a}=4 \times \frac{1}{2} \times \frac{10}{2} \times s=10 \mathrm{~s}$
57. Completed $\%=\frac{1152}{1501} \times 100=76.74 \%$

Incompleted \% = $\frac{349}{1501} \times 100=23.25 \%$
so completed represent $3 / 4$ and Incompleted represent $1 / 4$ so (3) option is correct.
58. Option (3) is correct 7 matches must be play to acquire the $4^{\text {th }}$ position.

In first stage 3 matches
In second stage 1 match
In third stage 1 match
In fourth stage 1 match
1 Extra match for the fourth position
so total matches are 7
59. Average gole per match $=\frac{171}{64}=2.67$
60. In each group 6 matches are played as their are 8 groups so total number of matches in first stage is $6 \times 8=48$


