(5) C.P = 400
S.P = 480
P = 80
$P\% = \frac{P}{C.P} \times 100 = \frac{80 \times 100}{400}$
= 20%

(6) $A + B - \frac{A \times B}{100} = 20 + 10 - \frac{20 \times 10}{100}$
$\frac{3000 - 200}{100} = \frac{2800}{100}$
= 28%

(7) S.P = 800
d = 20% M.P = ?
$M.P \times \frac{80}{100} = 800$
$MP = \frac{800 \times 100}{80} = 1000$

(8) S.P = 1800
P% = 25% C.P = ?
$1800 = \frac{125}{100} \times C.P$
$\frac{180000}{125} = C.P$
1440 = C.P

(9) M.P = 1500 S.P = ?
d = 10%
$S.P = \frac{90}{100} \times 1500$
S.P = 1350

(10) C.P = 150 S.P = 200
$P\% = \frac{50}{150} \times 100$ = 33.33 = 33.33%

(11) M − 15% = S.P
$M \times \left(1 - \frac{15}{100}\right) = S.P$
$M \times \left(\frac{100 - 15}{100}\right) = S.P$
M × 0.85 = S.P

S.P = C.P + 20% P
= 100 + 20
S.P = 120
from eq1 & 2
M × 0.85 = 120 141.18
$M = \frac{12000}{0.85}$
$Markup\% = \frac{M - C.P}{C.P} \times 100$
$= \frac{141.18 - 100}{100} \times 100$
$= \frac{41.18 \times 100}{100}$
= 41.18

(12) S.P = 2250
P% = 10%
C.P = ?
S.P = $\frac{110}{100}$ × C.P

2250 × 100 = 110 × C.P
~~2045~~ $\frac{2250 \times 100}{110}$ = C.P
2045 $\frac{225000}{110}$ = 2000

(13) P = 25%
C.P = 800
S.P = ?
S.P = $\frac{125}{100}$ × 800

S.P = 1000

(14) S.P = 15000
L% = 10%   C.P = ?
S.P = $\frac{90}{100}$ × C.P
1666.6 ~~5000~~
$\frac{15000 \times 100}{90}$ = C.P
9 | 16666.6
$\frac{150000}{9}$ = 16800

(15) C.P = 100
M.P = 150   S.P = 150 × 80

S.P − C.P = 20
P% = $\frac{20}{100}$ × 100
P% = 20%

16 C.P = 400
P = 12%
d = 5%
M.P = ?
S.P = $\frac{112}{100}$ × 400
S.P = 448
S.P = $\frac{95}{100}$ × M.P
$\frac{448 \times 100}{95}$ = M.P
= 480 $\frac{44800}{95}$

(17) C.P = 480
S.P = 576
P = 96
P% = $\frac{96}{480}$ × 100 = 20%

(18) P = 50
C.P = 500
P% = $\frac{50}{500}$ × 100
= 10%

20. P% = 15%
S.P = 2300
C.P = ?
S.P = $\frac{115}{100}$ × C.P

2300 = $\frac{115}{100}$ × C.P

$\frac{2300 \times 100}{115}$ = C.P

$\frac{230000}{115}$ = 2000

= 2000

21. C.P = 750
S.P = 900
P% = $\frac{150 \times 100}{750}$ = $\frac{300}{15}$ = 20

= 20%

L% = 20%
S.P = 640
C.P = ?

S.P = $\frac{80}{100}$ × C.P

$\frac{640 \times 100}{80}$ = C.P

23. S.P = 9600
P% = 20%
C.P = ?
S.P = $\frac{120}{100}$ × C.P

$\frac{9600 \times 100}{120}$ = 8000

24. S.P = 500
P% = 20%
C.P = ?
S.P = $\frac{120}{100}$ × C.P

$\frac{500 \times 100}{120}$ = C.P = $\frac{50000}{120}$ = 416.66 = 420

25. S.P = 1500, 1500
P = 20%, L = 10%

S.P = $\frac{120}{100}$ × C.P , S.P = $\frac{90}{100}$ × C.P

$\frac{1500 \times 100}{120}$ = C.P , $\frac{1500 \times 100}{90}$ = C.P

$\frac{15000}{12}$ = 1250 , $\frac{15000}{9}$ = 1666.6

$S.P = 1250$

$L = 12\%$

$C.P = ?$

$S.P = \frac{88}{100} \times C.P$

625

62500

$\frac{125000}{88} = C.P = 1450$

0.45

44

11

41. C.P = 100 P = 25%
S.P = 125

$\frac{100 \times 125}{100} = 125\%$

42. M.P = 500
↓ 10%
$\frac{500 \times 10}{100} = 50$
450
↓ 8%
$\frac{450 \times 8}{100} = 36$
108 = .

43. $\frac{20}{100}$ P
C.P
120 = S.P

$\frac{20}{120} \times 100 = \frac{50}{3} = 16.66$

16.66

4. 1200 − 960 = 240
$\frac{240}{1200} \times 100 = 20\%$

150 = P
$\frac{150}{500} \times 100 = 30\%$

(1) $S.P = \frac{75}{100} \times C.P$

$450 = \frac{75}{100} \times C.P$

600

$\frac{45000}{75_1} = C.P$

$600 = C.P$

(2) $S.P = 1440$

$C.P = 1200$

$P = 240$

$P\% = \frac{P}{C.P} \times 100 \rightarrow \frac{\overset{20}{\cancel{240}}}{\underset{1}{\cancel{1200}}} \times \cancel{100} = 20\%$

(3) $S.P = 960$

$C.P = 800$

$P = 160$

$P\% = \frac{P}{C.P} \times 100 \rightarrow \frac{\overset{20}{\cancel{160}}}{\underset{1}{\cancel{800}}} \times \cancel{100} = 20\%$

(4) $S.P = 1200$

$L = 20\%$ $\quad C.P = ?$

$1200 = \frac{80}{100} \times C.P$

$1500 \quad \cancel{3000}$

$\frac{\cancel{120000}}{\cancel{80}_2} = C.P$

$1500 = C.P$

108 - 100 = 8%

(37) 100
↓ 30%
130
↓ -20
$\frac{130 \times 20}{100} = 26 \Rightarrow 130 - 26 = 104$
= 4%

(38) Let = 100
↓ 25%
125
↓ 20
25 $\frac{125 \times 20}{100}$ 25%
= 0%

40 100
↓ 40%
140
↓ 30%
$\frac{140 \times 30}{100} = 42 = 140 - 42$
$= 98 \Rightarrow$ 2% decrease

50 100
↓ 20%
120
↓ 10%
$\frac{120 \times 10}{100} \rightarrow 120 - 12 = 108$ = 8% increase

$\frac{\overset{30}{\cancel{150}}}{3\ \cancel{9}\cancel{450}} \times 10\cancel{0}$

(10) $\frac{\overset{75\ 25}{\cancel{150}}}{8,\ \cancel{600}} \times 1\cancel{00} = 25\%$

(31) Both are equal

(32) $\frac{4\cancel{0}}{100} = \overset{200}{\cancel{2000}} = 20000$

(33) Let's B = 100
A = 120

$\frac{\overset{10}{\cancel{20}}}{\cancel{6}\ \cancel{120}} \times \cancel{100}$ = 8.3

$\frac{A - B \times B}{A} = \frac{\overset{100}{\cancel{2000}}}{\cancel{120}00} = 16.66$

6, 1 = 16.67

(34) A = 100
B = 125

$\frac{B - A \times A}{B} = \frac{\overset{20}{\cancel{2500}}\ 500}{\cancel{125}\ 25} = 20\%$

(35) A = 140, B = 100

$\frac{A - B \times B}{A} = \frac{\cancel{4000}}{\cancel{140}\ 7} = \cancel{200}\ 28.57 = 28.57$

Let 100
↓ 20%
120 $\xrightarrow[-10\%]{}$ $\frac{12\cancel{0} \times 1\cancel{0}}{1\cancel{00}} = 12 \Rightarrow 120 - 12 = 108$