

1. Total Fixed Cost = $\$6 \times 10,000 = \$60,000$

$(\text{Price} - \$4) \times 12,000 \text{ units} - \$60,000 = \$120,000$

Price = $\$19$ (B)

2. $(60 - 48) \cdot \text{units} - 428,000 = 364,000$
 units = 66,000 (D)

3. 30% (C)

$(1 - 70\%)$
 \downarrow
 30%

4. $\text{PVA} = \text{factor} \times \text{PMT} \approx 3.75 \times 12,000 \approx 45,000$ (B)
 $n=6, i=15\%$

5. $\text{PVA} = \text{factor} \times \$150,000$
 $n=5, i=6\%$

$4.212 \times 150,000 = 631,800 - 450,000$
 NPV = 181,800 (B)

6. (B)

March	
24	120
121	
25	

April	
	125 x 20%

7. AP AQ SP \$8/HR 40k x 20 = \$8/HR
 AQ 580HR
 $\$5510$ $\$4640$
 (A) \$870

8. $240,000 \times 40\% = 96,000 \text{ CM}$
 $-66,000 \text{ FC}$
 $30,000 \text{ profit}$

ROI = $\frac{30,000}{240,000} \times 2 = 25\%$ (B)

9. $\text{RI} = 50,000 - (8\% \times 220,000) = \$32,400$ (B)

10. Fixed Costs are irrelevant (extra capacity exists... using it is "free")
 pricing at \$30 (variable cost) doesn't harm South Division (B)

11. turnover = $\frac{\text{SALES}}{\text{Investment}} = 40\%$ (C)

12. (D)

13.

Aug	170	$\times 5\% = 8.5$
Sept	175	$\times 17\% = 29.75$
Oct	160	$\times 40\% = 64$
Nov	150	$\times 35\% = 52.5$

(C) \$154,750

14. (A) 15. (C) $\text{ROI} = \frac{\text{Profit}}{\text{Investment}}$ ← $\text{Profit} = \text{Sales} - \text{expense} \neq \Delta$

16. (E)

17. $\text{ROI} = \text{profit margin} \times \text{turnover}$
 $20\% = x \cdot 5$ (C) = 4%

18. Two cash flows
 ① $\$3000 \times \text{PV}$ = $\$1,701$
 $n=5, i=12\%$

② $\$8000 \times \text{PVA}$ = $\$28,840$
 $n=5, i=12\%$
 $\$30,541$
 Investment = 35,000 NPV < zero (A)

19. $\$20,000 \times .4018 = 8,036$
 $\$40,000 \times .1615 = 6460$
 $\$14,496 - 10,000 = 4,496$ (E)

$i=20\%, n=5$
 $i=20\%, n=10$

20. $\$28,000 \times 2.531 = 70,868 - 70,000 = \868 (A)

$\text{PVA } i=9\%, n=3$

