

INSTRUCTOR'S MANUAL
For Use With
PRACTICAL RADIOGRAPHIC IMAGING
Eighth Edition

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PRACTICAL RADIOGRAPHIC
IMAGING

By

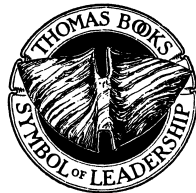
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**ADDITIONAL ASSIGNMENT QUESTIONS:
CALCULATIONS**

Chapter 5—mAs Calculations Bank (oral or written)

I. mA x s = mAs (5 seconds each)

1. $50 \times 1/20 =$
2. $200 \times 1/5 =$
3. $100 \times 1/12 =$
4. $200 \times 1/8 =$
5. $200 \times 7/20 =$
6. $100 \times 3/20 =$
7. $300 \times 3/20 =$
8. $300 \times 1/8 =$
9. $100 \times .05 =$
10. $200 \times .15 =$
11. $300 \times .25 =$
12. $200 \times .07 =$
13. $400 \times .02 =$
14. $200 \times .125 =$
15. $50 \times .4 =$

II. mAs = mA x s (8 seconds each)

MUST BE FRACTIONS, NOT DECIMALS:

16. $10 \text{ mAs} = 50 \text{ mA} \times$ _____
17. $3.3 \text{ mAs} = 100 \text{ mA} \times$ _____
18. $1.6 \text{ mAs} = 100 \text{ mA} \times$ _____
19. $15 \text{ mAs} = 300 \text{ mA} \times$ _____
20. $45 \text{ mAs} = 300 \text{ mA} \times$ _____
21. $8.3 \text{ mAs} = 100 \text{ mA} \times$ _____
22. $60 \text{ mAs} = 300 \text{ mA} \times$ _____
23. $80 \text{ mAs} = 400 \text{ mA} \times$ _____
24. $240 \text{ mAs} = 400 \text{ mA} \times$ _____
25. $66 \text{ mAs} = 100 \text{ mA} \times$ _____
26. $4 \text{ mAs} = 100 \text{ mA} \times$ _____
27. $5 \text{ mAs} = 150 \text{ mA} \times$ _____
28. $180 \text{ mAs} = 300 \text{ mA} \times$ _____
29. $12.5 \text{ mAs} = 100 \text{ mA} \times$ _____
30. $160 \text{ mAs} = 200 \text{ mA} \times$ _____

Chapter 6—kVp Calculations Bank

(The first 10 may be given orally:)

1. What is 15 percent of 70?
2. What is 15 percent of 40?
3. What is 15 percent of 60?
4. What is 15 percent of 110?
5. What is 5 percent of 120?
6. What is 5 percent of 90?
7. What is 5 percent of 80?
8. What is 5 percent of 50?
9. Starting at 50 kVp, what new kVp would result in a density 8 times greater than the original?
10. Starting at 80 kVp, what new kVp would result in a density 1/4 as great as the original?

Fill in the kVp in the following problems which would maintain equal density with the original technique, listed first:

- | | |
|--|--|
| 11. 200 mA 1/8 sec. 60 kVp
100 mA 1/2 sec. ____ kVp | 13. 50 mA 1/60 sec. 50 kVp
400 mA 1/120 sec. ____ kVp |
| 12. 400 mA 1/20 sec. 90 kVp
300 mA 1/60 sec. ____ kVp | 14. 300 mA 1/30 sec. 70 kVp
150 mA 1/10 sec. ____ kVp |