



Direct Square Law Worksheet

1. A radiograph is performed at 12 mAs and 40 inches SID. The technologist increases the SID to 72 inches. What mAs is required to maintain the same exposure?

2. An image was taken at 20 mAs and 44 inches SID. The repeat exposure is performed at 60 inches SID. What new mAs is required?

3. A chest radiograph is performed at 6 mAs and 72 inches SID. The SID is decreased to 40 inches. What mAs is required to maintain receptor exposure?

4. An abdomen is taken at 30 mAs and 40 inches SID. The technologist increases the SID to 56 inches. What mAs is needed?

5. A radiograph is made using 18 mAs at 48 inches SID. The SID is changed to 72 inches. What is the new mAs?

6. An image was taken at 10 mAs and 40 inches SID. The technologist changes the SID to 80 inches. What mAs is required?

7. A portable exam is performed at 25 mAs and 36 inches SID. The repeat exposure is performed at 44 inches SID. What mAs is required?

8. A spine image is acquired using 40 mAs at 60 inches SID. The SID is decreased to 48 inches. What new mAs maintains exposure?

9. A radiograph is performed at 15 mAs and 40 inches SID. The SID is increased to 64 inches. What mAs is required?

10. An exam was completed at 8 mAs and 44 inches SID. The SID is changed to 72 inches. What new mAs is needed?

Answers:

1. 38.9 mAs
2. 37.2 mAs
3. 1.9 mAs
4. 58.8 mAs
5. 40.5 mAs
6. 40 mAs
7. 37.3 mAs
8. 25.6 mAs
9. 38.4 mAs
10. 21.4 mAs

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