## **Topic: Treatment**

1. A patient is prescribed a dose of 4,500 cGy over 25 fractions. The daily fractionation of 180 cGy is supposed to be delivered at 100cm SSD. What is the patient's total dose if patient is treated at 90 cm SSD?

A. 3,655 cGy

B. 4,755 cGy

C. 5,555 cGy

D. 6,455 cGy

### Answer:

C. We use the inverse square law to solve this problem. The general formula is: New Dose = Prescribed Dose x (Prescribed SSD / Actual SSD)<sup>2</sup>. The calculation is as follows:  $4,500 \text{ cGy} \times (100 \text{ SSD}) / 90 \text{ SSD})^2 = 5,555 \text{ cGy}$ .

# Topic: Anatomy - Spine

- 2. How many vertebra are present in the thoracic spine?
- A. 5 vertebrae
- B. 7 vertebrae
- C. 9 vertebrae
- D. 12 vertebrae

#### Answer:

D. There are twelve vertebra in the thoracic spine.

### **Topic: Treatment Planning**

3. What is the equivalent square (EqSq) of a rectangular field measuring 8cm by 15cm?

A. 9.23 cm

B. 10.43 cm

C. 11.20 cm

D. 12.46 cm

#### Answer:

B. We use the equivalent square formula to solve this problem. The general formula is  $EqSq = (2 \times (Dimension 1 \times Dimension 2)) / (Dimension 1 + Dimension 2)$ . The calculation is as follows:  $(2 \times (8cm \times 15cm)) / (8cm + 15cm) = 10.43 \text{ cm}$ .

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