Unit 5 Textbook Rationales

1. b The answer is the N½ of the NE¼ of the SW¼ and the SE¼ of the NW¼.

2. d No matter how many ranges or tiers it takes, the description must always refer to the principal meridian and the base line of the survey system area in which the land being described is located.

3. d A section has 640 acres. A ½ of ¼ of 640 equals 80 acres. Using decimals, the equation is 0.5 × 0.25 × 640 = 80.

4. b Monuments are the *turning points* in the metes-and-bounds method of describing property. In this method, natural, tangible features, such as a distinctive rock or a great tree, were sometimes used as monuments. The path of a stream might serve as all or part of a boundary line. *Metes* means distance; *bounds* refers to direction (not boundaries). The description gives distance in a compass direction from the point of beginning (POB) and then from each succeeding monument, until it returns to the POB.

5. c The answer is Section 36.

6. c The answer is C.

7. a The answer is Section 7.

8. a The answer is Section 1.

9. a The answer is Area 1.

10. b An acre consists of 43,560 square feet. Therefore, a half-acre has 21,780 square feet. Each square foot sells for $2.15. Therefore, 21,780 sq ft × $2.15 per sq ft = $46,827.

11. a The area described is a triangle formed when a quarter of a section is cut from one corner to the opposite corner. A section has 640 acres; a quarter section has 160 acres; and half of that quarter has 80 acres.

12. d Disregard all elements of the description except those showing area. It is a quarter of a quarter of a section: ¼ × ¼ × 640, or 40 acres. When sold, each acre brought $4,500. Therefore the gross selling price is calculated as follows: 40 acres × $4,500 = $180,000.

13. c A property description based on the rectangular survey system must always make reference to the principal meridian and base line of the survey system area in which the property is located. This description makes no reference to a principal meridian.

14. b Price divided by area (in square feet) gives cost per square foot. The area is 4.5 the size of one acre (43,540 sq ft): 4.5 × 43,560 sq ft = 196,020 sq ft. Then, $78,400 ÷ 196,020 sq ft = $0.3996 (essentially, $0.40) per square foot. Determining the purchase price of a 100-by-150-foot lot at the same cost per square foot requires finding the area of the lot: 100′ × 150′ = 15,000 sq ft. Multiply this area by $0.40: 15,000 sq ft × $0.40 = $6,000.

15. b Base lines, meridians, and townships are elements of the rectangular survey system, not the metes-and-bounds system.

16. b The area of ten acres in square feet is figured as follows: 10 acres x 43,560 sq ft = 435,600 sq ft. Reserving 26,000 square feet for roads leaves 409,600 square feet. The

area of each lot is to be not less than 5,000 square feet: 50′ × 100′ = 5,000 sq ft. Divide the available square footage by the square footage needed for each lot: 409,600 sq ft ÷ 5,000 square feet = 81.92. Because each lot must be “not less than 50 feet × 100 feet,” the property can be subdivided into 81 such lots.

17. b The parcel is 256,000 square feet: 400′ × 640′ = 256,000 sq ft. Half of it is 128,000 square feet. Each acre requires 43,560 square feet. Therefore: 128,000 sq ft ÷ 43,560 sq ft per acre = 2.938 acres (rounded to three decimal places). The nearest answer is 2.94.

18. b The shortest distance from Section 1 to Section 36 is from the bottom of Section 1 to the top of Section 36, or four miles.

19. b Section 16 is one of the centrally located sections in the standard township and is designated as the school section.

20. c A legal description is a precise method of identifying a parcel of land and includes metes-and-bounds, rectangular survey, and lot-and-block as methods that can be used for identification. A street address is not a legal description and, therefore, not as precise.