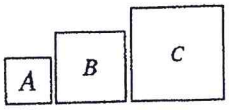

3. In the figure above, the perimeter of square A is $\frac{2}{3}$ the perimeter of square B, and the perimeter of square B is $\frac{2}{3}$ the perimeter of square C. If the area of square A is 16, what is the area of square C?

(A) 24
(B) 36
(C) 64
(D) 72
(E) 81

10. Fifteen percent of the coins in a piggy bank are nickels and five percent are dimes. If there are 220 coins in the bank, how many are not nickels or dimes?

(A) 80
(B) 176
(C) 180
(D) 187
(E) 200

11. At the beginning of 1999, the population of Rockville was 204,000 and the population of Springfield was 216,000. If the population of each city increased by exactly 20% in 1999, how many more people lived in Springfield than in Rockville at the end of 1999?

(A) 2,400
(B) 10,000
(C) 12,000
(D) 14,400
(E) 43,200

13. In a list of seven integers, 13 is the lowest member, 37 is the highest member, the mean is 23, the median is 24, and the mode is 18. If the numbers 8 and 43 are then included in the list, which of the following will change?

I. The mean
II. The median
III. The mode

(A) I only
(B) I and II only
(C) I and III only
(D) II and III only
(E) I, II, and III

Hon Alg 2

Bellwork Answers

(3) perimeters

$A = \frac{2}{3} B$

$B = \frac{2}{3} C$

Area of $A = 16$

side of $A = \sqrt{16} = 4$

perimeter of $A = 4 \cdot 4 = 16$

$\frac{3}{2} 16 = \frac{2}{3} B \cdot \frac{3}{2} \rightarrow B = 24$

$\frac{3}{2} \cdot 24 = \frac{2}{3} C \cdot \frac{3}{2}$ $C = 36$

If perimeter of $C = 36$

each side $= 36/4 = 9$

Area of $C = 9^2 =$ 81

E

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(10) 15% nickels & 5% dimes → 80% not nickels or dimes

$(.80)(220) =$ 176

B

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(11)

	Beginning of 1999	end of 1999
Springfield	216,000	$(1.2)(216,000) = 259,200$
Rockville	204,000	$(1.2)(204,000) = 244,800$
		Difference 14,400

D

---

(13)

A