

- (1) What is the sum of the first 26 terms of the sequence $6 + 12 + 18 + \dots$?
A) 16605 B) 12012 C) 10780 D) 2106 E) 6630
- (2) How many centiliters of water must be added to 75 centiliters of a 80% salt solution in order to produce a 25% salt solution?
A) 142 B) 75 C) 270 D) 70 E) 165
- (3) What is $32(\text{base } 7) + 31(\text{base } 7)$ in base 7?
A) 063 B) 134 C) 118 D) 103 E) 1-12
- (4) What is $351505 + 815706 - 178348$?
A) 650315 B) 988863 C) 600471 D) 1035847 E) 728482
- (5) If the edge of the cube is 9 units, what is the volume of the cube?
A) 1000 B) 1000 C) 729 D) 343 E) 216
- (6) 70% of 280 is 20% of ____
A) 444 B) 3185 C) 640 D) 817 E) 980
- (7) What is the sum of the first 76 terms of the sequence $6 + 12 + 18 + \dots$?
A) 17556 B) 90 C) 16650 D) 10725 E) 168
- (8) 95% of 230 is 20% of ____
A) 1092 B) 853 C) 875 D) 440 E) 326
- (9) What is the sum of the first 43 terms of the sequence $5 + 10 + 15 + \dots$?
A) 4730 B) 2628 C) 3675 D) 6006 E) 12768
- (10) How many minutes are between 5:04AM and 6:42AM?
A) 98 B) 25 C) 1013 D) 543 E) 130
- (11) If the edge of the cube is 9 units, what is the volume of the cube?

A) 1000 B) 216 C) 125 D) 729 E) 125

(12) What is $999425 + 771807 - 698975$?

A) -618049 B) 1072257 C) 521110 D) 404715 E) 1047494

(13) If the edge of the cube is 10 units, what is the volume of the cube?

A) 1000 B) 512 C) 125 D) 1000 E) 1000

(14) What is $12(\text{base } 4) + 22(\text{base } 4)$ in base 4?

A) 102 B) 1-10 C) 100 D) 102 E) 100

(15) What is one of the x-intercepts of $3x^2 + 25x + 8$

A) $-1/3$ B) 2 C) 2 D) $1/2$ E) $5/2$

(16) Which is an equation for the line passing through the point (10, 9) and having a slope of -4?

A) $y = 2x + 5$ B) $y = -4x + 31$ C) $y = 2x + 28$ D) $y = -5x + 25$ E) $y = 4x - 6$

(17) 65% of 235 is 50% of _____

A) 190 B) 15 C) 414 D) 305 E) 1400

(18) How many centiliters of water must be added to 40 centiliters of a 70% salt solution in order to produce a 15% salt solution?

A) 146 B) 67 C) 275 D) 390 E) 158

(19) What is $503308 + 417504 - 116019$?

A) -17558 B) 846711 C) 804793 D) 980756 E) 946732

(20) If the edge of the cube is 7 units, what is the volume of the cube?

A) 343 B) 343 C) 216 D) 343 E) 729

Math UIL Answer Key

1. D
2. E
3. A
4. B
5. C
6. E
7. A
8. A
9. A
10. A
11. D
12. B
13. A
14. B
15. A
16. B
17. D
18. A
19. C
20. A