**Math 3003**

***Cognitively Guided Instruction Quiz/Study Guide* Solutions**

1. Join: Start Unknown

2. Separate: Change Unknown

3. Compare: Referent Unknown

4. Multiplication (Multiplicative Comparison)

5. Measurement Division

6. Part Part Whole: Whole Unknown

7. Separate: Result Unknown

8. Join: Result Unknown

9. (a) 4 (b) 5 (c) $4.60/hour

10. (a) 2.5 h (b) 20 mph

11. Answers may vary.

(a) 34 children are going on a school field trip to the zoo. If a chaperone is required for 6 children, how many adults should go on the field trip?

(b) If I have $34 in my wallet and Lowes has plants for $6, how many plants can I afford?

(c) Grandma baked 34 cookies for her 6 grandchildren. Each child got 5 cookies. How many were left over (for Grandma to enjoy, herself)?

(d) The principal ordered 34 pizzas for 6 primary classes. On average, how many pizzas were ordered per class?

(e) Fred earned $34 for 6 hours of raking leaves. How much did he earn per hour?

12. (a) decade (b) incrementing (c) combining tens and ones

13. direct modeling; trial & error; matching; largest; down

14. 10; invented

15. Answers may vary.

 (1) 28, 38, 48, 58, 68, 78, 79, 80, 81

 (2) 53, 63, 73, 74, 75, 76, 77, 78, 79, 80, 81

 (3) 28 + 2 + 53 – 2 = 30 + 51 = 81

16. Answers may vary.

 (1) (20 + 8)(50 + 3) = 1000 + 60 + 400 + 24 = 1,484

 (2) 28 × 53 Add 212 + 424 + 848 = 1,484

 14 106

 7 212

 3 424

 1 848

17. Lydia has 20 pairs of shoes, and Joanna has 12 pairs. How many more pairs does Lydia have than Joanna?; 8

 Mary had some money in her purse and then spent $15. Now she has $24. How much money did she have at first?; $39

 A dogwood tree is 3 feet tall. A Japanese elm tree is 4 times as tall. How tall is the elm tree?; Multiplication (multiplicative comparison); 12 feet

 Measurement division; 12 × 5 = 60

 Join: Start unknown; 6 + 8 = 14

 A recreational league has 30 participants. If there are 6 basketball teams in the league, how many players are on each team?; 5 players

 Sarah started the day at the beach with 9 shells and found some more. Now she has 17 shells. How many did she find?; 8 shells

 Part Part Whole: Part Unknown; 6 + 9 = 15

 Fred has 8 matchbox cars. Mark has 15 more cars than Fred. How many matchbox cars does Mark have?; 23 cars

**Do your best! Rise to the challenge! Live and learn!**