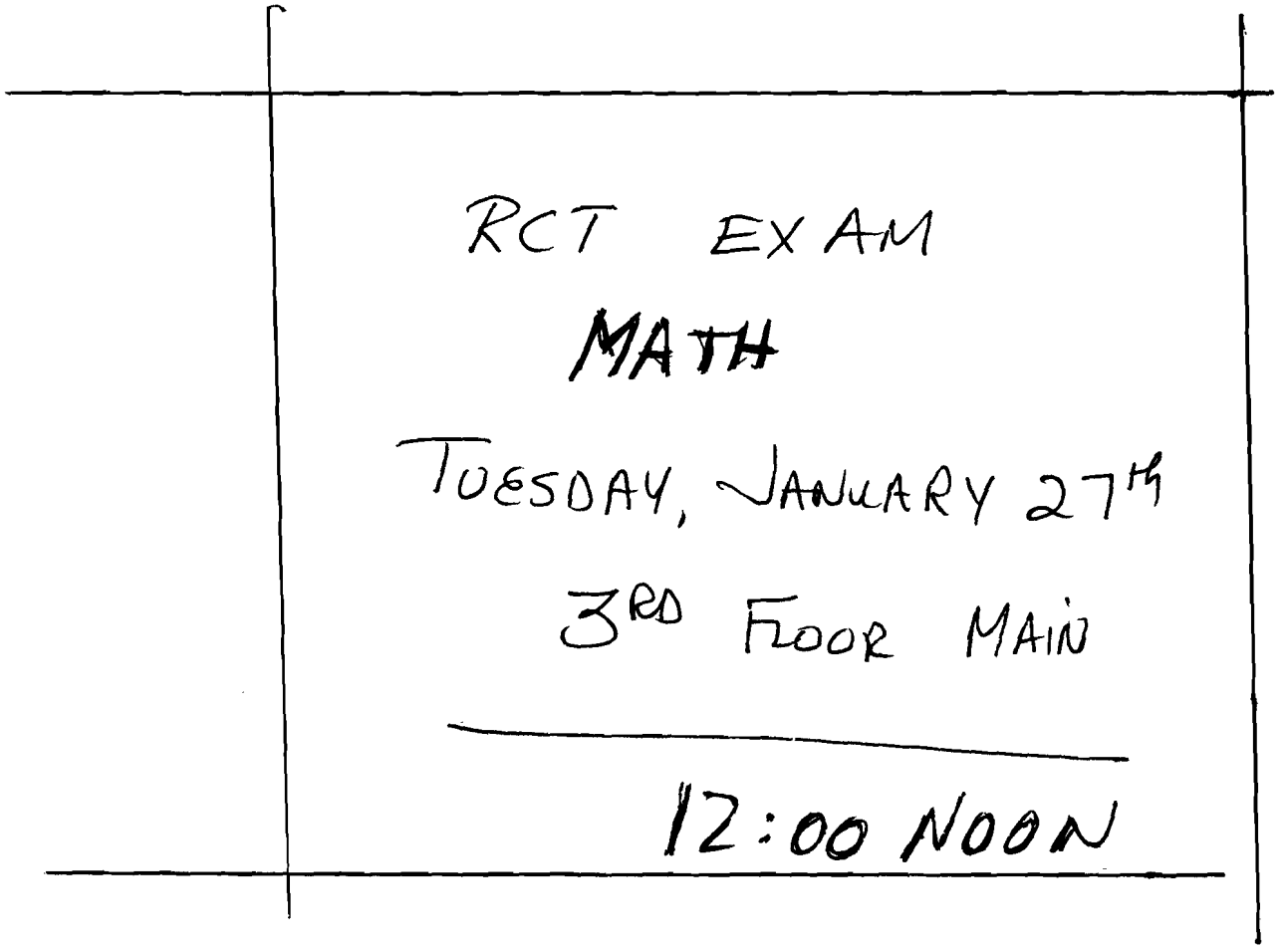
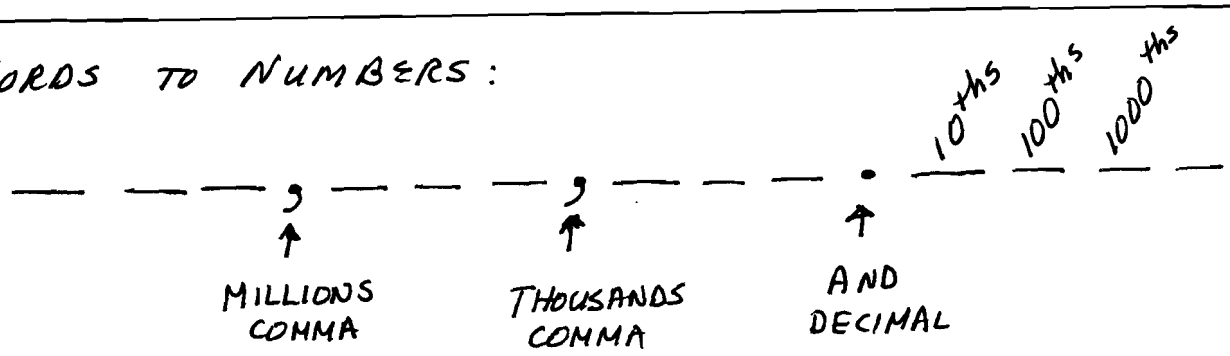


REVIEW FOR 2004 JUNE RCT

1.) WORDS TO NUMBERS:



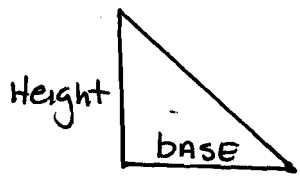
2.) QUESTIONS 1 – 20 : NO NEGATIVE ANSWERS FOR SUBTRACTION.

3.) DOWN PAYMENT IS SUBTRACTED FROM THE ORIGINAL COST: (#7)

4.) EXAMPLES OF DIVISION:

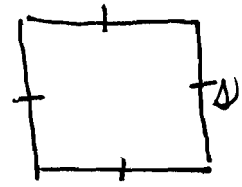
$\frac{350}{50}$ $\qquad$ $50\overline{)350}$ $\qquad$ $50\,|\,350$

5.) AREA:



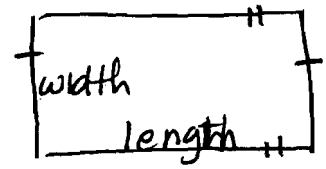
$A = \frac{1}{2}$ base x height

SQUARE

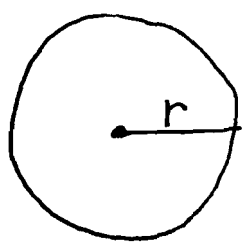


$A = s \cdot s$

RECTANGLE



$A = l \times w$



r = radius

r is $\frac{1}{2}$ diameter

$A = \pi r^2$

All answers in square units

ft^2 yd^2 in^2

6.) PERIMETER = SUM (ADD) ALL THE SIDES

7.) MEAN (AVERAGE) = Ex. TEST GRADES

FOUR TEST SCORES: 90, 85, 80, 85

- ADD THEM UP: $90 + 85 + 80 + 85 = 340$
- DIVIDE BY # OF TESTS: $340 \div 4 = 85$
- 85 = AVERAGE

8.) MEDIAN: = MIDDLE NUMBER IN A SERIES

★ FIRST PUT THE NUMBERS IN ORDER AND THEN PICK THE MIDDLE NUMBER.

EX: 6, 13, (19), 21, 27

9.) MODE: = THE NUMBER THAT APPEARS THE MOST IN A SERIES.

EX: 2, 3, 4, 3, 5, 3, 7 (3) = MODE

10.) FINDING THE VALUE OF A VARIABLE. (#14)

Solve for p: $7p - 3 = 18$

GUESS + CHECK

$7(5) - 03 = 18$; $32 = 18$ ✗

$7(1) - 03 = 18$; $4 = 18$ ✗

$7(3) - 03 = 18$; $18 = 18$ ✓

$p = 3$

ALGEBRA WAY

$$7p - 3 = 18$$
$$+3 \quad +3$$
$$\frac{7p}{7} = \frac{21}{7}$$
$$p = 3$$

11.) REDUCE TO LOWEST TERMS: (#15)

$$\frac{48 \div 2 = 24 \div 6 = 4}{60 \div 2 = 30 \div 6 = 5} = \frac{4}{5}$$

KEEP GOING UNTIL YOU CAN GO NO MORE

12.) PROBABILITY: #18

$\frac{3}{10}$ SOMETHING WILL HAPPEN

$\frac{7}{10}$ SOMETHING WON'T HAPPEN

13.) FRACTIONS TO REMEMBER:

$\frac{1}{2} = .50$

$\frac{2}{2} = 1.00$

$\frac{1}{4} = .25$

$\frac{2}{4} = .50$

$\frac{3}{4} = .75$

$\frac{4}{4} = 1.00$

$\frac{1}{5} = .20$

$\frac{2}{5} = .40$

$\frac{3}{5} = .60$

$\frac{4}{5} = .80$

$\frac{5}{5} = 1.00$

14.) CHANGING A MIXED NUMBER TO AN IMPROPER FRACTION (#24)

$2\frac{7}{9} \rightarrow 2\overset{+}{\underset{\times}{\frac{7}{9}}} = \frac{25}{9}$

* DENOMINATOR STAYS THE SAME

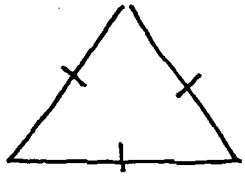
15.) REMAINDER IN DIVISION (#27)

$$\begin{array}{r} 36 \\ 4\overline{)145} \\ -12\downarrow \\ \hline 25 \\ -24 \\ \hline 1 \end{array}$$

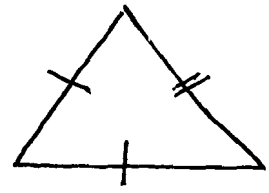
36 R 1

REMAINDER (LEFT OVER) = 1

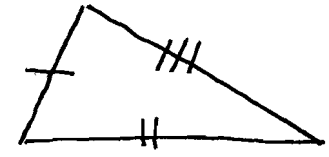
16.) TRIANGLES: (#28)



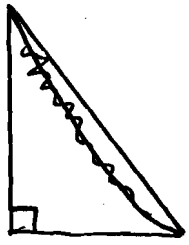
EQUILATERAL (ALL SIDES EQUAL)



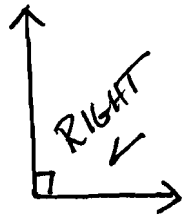
ISOSCELES (TWO SIDES EQUAL)

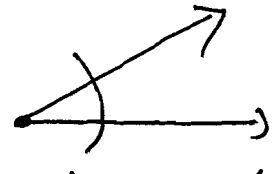


SCALENE (NO SIDES EQUAL

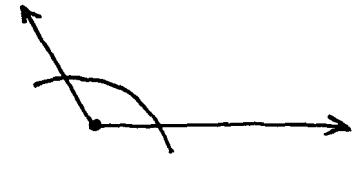


RIGHT TRIANGLE 90°

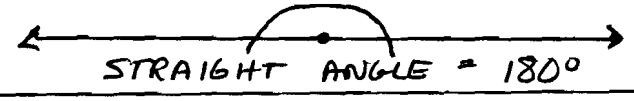




ACUTE ∠ >90°



OBTUSE ∠ <90°



17.) KNOW THESE SQUARES AND SQUARE ROOTS: (#30)

$1^2 = 1$ $\quad \sqrt{1} = 1$

$2^2 = 4$ $\quad \sqrt{4} = 2$

$3^2 = 9$ $\quad \sqrt{9} = 3$

$4^2 = 16$ $\quad \sqrt{16} = 4$

$5^2 = 25$ $\quad \sqrt{25} = 5$

$6^2 = 36$ $\quad \sqrt{36} = 6$

$7^2 = 49$ $\quad \sqrt{49} = 7$

$8^2 = 64$ $\quad \sqrt{64} = 8$

$9^2 = 81$ $\quad \sqrt{81} = 9$

$10^2 = 100$ $\quad \sqrt{100} = 10$

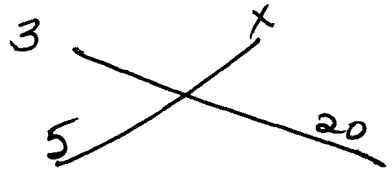
$11^2 = 121$ $\quad \sqrt{121} = 11$

$12^2 = 144$ $\quad \sqrt{144} = 12$

18.) PROPORTIONS: SOLVING (#32)

$$\frac{3}{5} = \frac{x}{20}$$

CROSS MULTIPLY



$60 = 5x$

$\frac{60}{5} = \frac{5x}{5}$

$12 = x$

19.) LEAST COMMON MULTIPLE OF 2, 4, 5

3 → 2, 4, 6, 8, 10, 12, 14, 16, 18, (20)

2 → 4, 8, 12, 16, (20) (STOP WHEN YOU HAVE A MATCH)

1 → 5, 10, 15, (20), 25 (5 numbers)

* SAME FOR LEAST COMMON DENOMINATOR (#34)

20.) PRIME NUMBERS: KNOW THESE:

1, 2, 3, 5, 7, 11, 13, 17, 19, 23, 29,

31, 37, 41, 43, 47.

PRIME NUMBERS CAN ONLY BE DIVIDED BY THEMSELVES AND 1. (#35)

21.) CHECKING ACCOUNT PROBLEMS:

BALANCE: WHERE YOU BEGIN, WHAT YOU HAVE

DEPOSITS: ADD

CHECKS & WITHDRAWALS: SUBTRACT (#36)

22.) CHANGE % TO A DECIMAL: (#38)

MOVE DECIMAL 2 PLACES LEFT

3% = .03 35% = .35

10% = .10 41% = .41

OR: DIVIDE THE NUMBER BY 100

$16\% = \frac{16}{100} = .16$

23) PERCENT PROBLEMS: COMMISSIONS, SALES TAX, DISCOUNTS, TIPS

20% OFF $100

.20 x 100 = $20

15% COMMISSION

.15 x ____ =

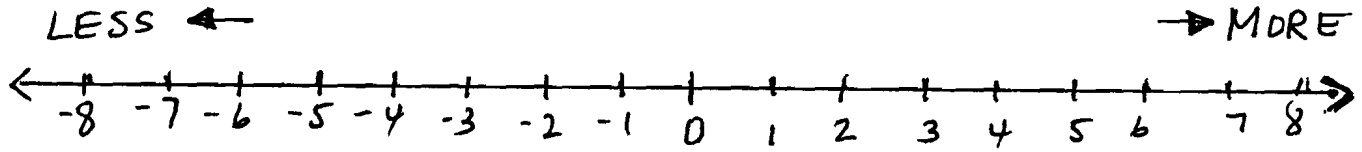
24) CUBES: (Power of 3)

$3^3 = 3 \cdot 3 \cdot 3 = 27$

$5^3 = 5 \cdot 5 \cdot 5 = 125$

(#39)

25) KNOW THE NUMBER LINE:



(#44)

26) KNOW THESE WORDS:

PRODUCT: MULTIPLY, TIMES, FACTORS

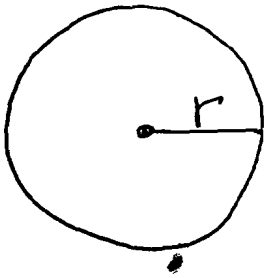
SUM: ADD, TOTAL, ALL, MORE

SUBTRACT: MINUS, DIFFERENCE, LESS,

DIVIDE: QUOTIENT

(#46)

27.) CIRCUMFERENCE = DISTANCE AROUND



FORMULA:

$C = 2\pi r$

(#48)

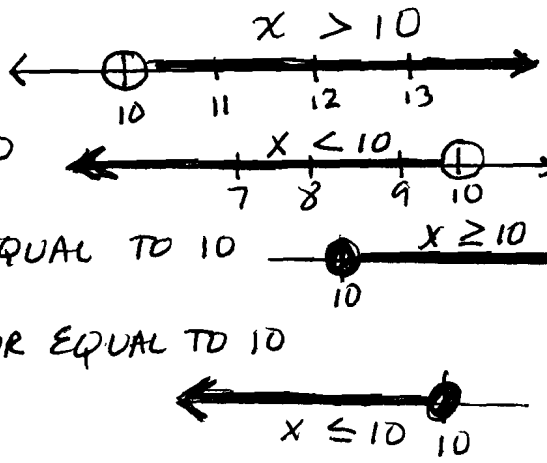
28.) INEQUALITIES

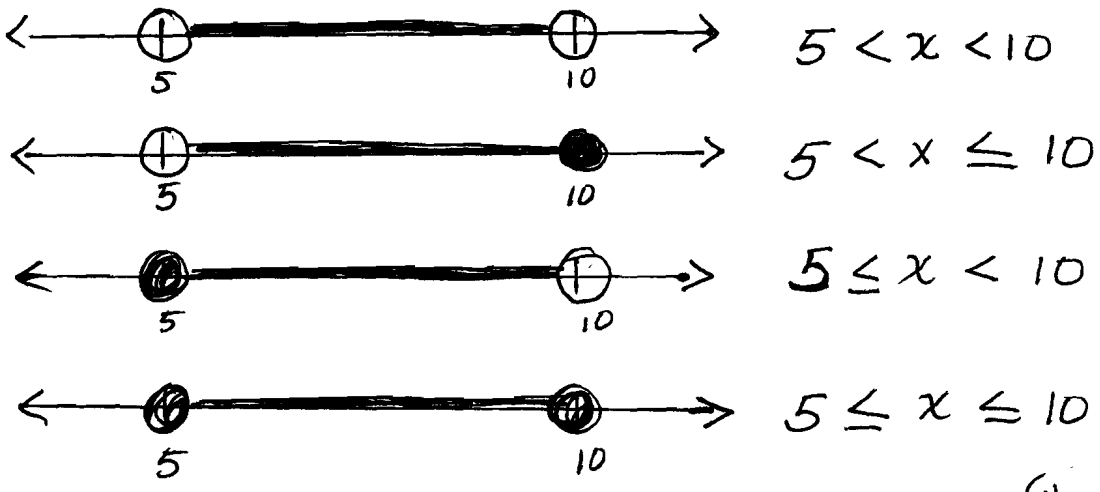
$x < 10$ — x LESS THAN 10

$x > 10$ — x GREATER THAN 10

$x \leq 10$ — x LESS THAN OR EQUAL TO 10

$x \geq 10$ — x GREATER THAN OR EQUAL TO 10





(# 51)

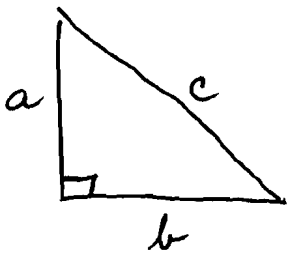
29.) NUMBER + PLACE VALUE (DECIMALS)

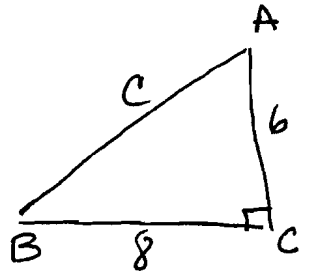
$\overline{1000^{s}}$ $\overline{100^{s}}$ $\overline{10^{s}}$ $\overline{1^{s}}$ • $\overline{10^{ths}}$ $\overline{100^{ths}}$ $\overline{1000^{ths}}$ $\overline{10000^{ths}}$

(# 53)

30.) PYTHAGOREAN THEOREM

$a^2 + b^2 = c^2$





$a^2 + b^2 = c^2$

$6^2 + 8^2 = c^2$

$36 + 64 = c^2$

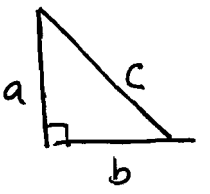
$100 = c^2$

$\sqrt{100} = \sqrt{c^2}$

$10 = c$

#56

31) SIDE VALUES FOR RIGHT TRIANGLES



if a	+	if b	then = c
3	+	4	= 5
6	+	8	= 10
12	+	16	= 20

Simple!

#52

32) TIME QUESTIONS

1 DAY = 24 hours

1 hour = 60 minutes

1 minute = 60 seconds

1 week = 7 days

EX: START @ 9:45 A.M.
END @ 2:15 P.M.

How Long

9:45 – 10:45 = 1 hr.
10:45 – 11:45 = 1 hrs
11:45 – 12:45 = 1 hr.
12:45 – 1:45 = 1 hr.

4 hrs

1:45 – 2:15 = 30 min

4 hrs
+ 30 min

4hs + 30 min

4 ½ hrs

Answers RCT Math June 2004

1. 5,092
2. 2,097
3. 2/5
4. 6
5. 1,124
6. 16.6
7. 5 months
8. 17,192
9. 32 cm
10. -6
11. 8
12. 1.3
13. 78
14. p=3
15. 4/5
16. 19/24
17. 30 cm
18. 7/10
19. 5 4/5
20. 28
21. 3
22. 4
23. 1
24. 1
25. 3
26. 2
27. 1
28. 4
29. 3
30. 1
31. 2
32. 2
33. 3
34. 3
35. 1
36. 3
37. 3
38. 2
39. 4
40. 2
41. 2
42. 4
43. 2
44. 3
45. 1
46. 3
47. 2
48. 3
49. 2
50. 4
51. 1
52. 1
53. 4
54. 1
55. 3
56. 2
57. 4
58. 4
59. 4
60. 1