## CHAPTER 7 RAMANUJAN A GREAT MATHEMATICIAN

### Fill in the blanks

1. In 1913, Prof. G.H. Hardy received a letter from Ramanujan containing sheets of paper filled with _____ but no proofs.
2. Hardy initially found Ramanujan's work _____ and set it aside, but later realized its brilliance.
3. Ramanujan's mother was a devout worshipper of the goddess of _____, a town in Tamil Nadu.
4. Ramanujan's mother allowed him to go to England after she had a _____ in which the goddess approved his journey.
5. The financial support for Ramanujan's travel to England was arranged by _____ College.
6. In England, Ramanujan cooked his own _____ food to maintain his religious practices.
7. Ramanujan was elected a Fellow of the _____ Society at the age of thirty.
8. He became the first _____ to be honoured as a Fellow of Trinity College.
9. Ramanujan returned to India in _____ due to illness and passed away in 1920.
10. Ramanujan's journey highlights the conflict between _____ traditions and _____ opportunities.

### Multiple choice Questions

1. When Hardy initially dismissed Ramanujan's theorems, it demonstrates:

a) Academic arrogance toward unconventional thinkers

b) The rigorous proof-based standards of Western mathematics

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c) Cultural bias against Indian scholars

d) All of the above

2. Ramanujan's mother's dream about the goddess reflects:

a) Superstition overriding rational decision-making

b) Cultural negotiation between tradition and progress

c) Divine intervention in human affairs

d) A common psychological coping mechanism

3. The phrase "What's Trinity for!" suggests Hardy believed:

a) Institutions should fund talent regardless of background

b) Ramanujan owed Trinity College his discoveries

c) Only elite universities could recognize genius

d) Mathematics should prioritize practical applications

4. Ramanujan cooking his own food in England symbolizes:

a) Resistance to cultural assimilation

b) Poor adaptation to foreign environments

c) Religious orthodoxy limiting his potential

d) A strategic compromise to maintain identity

5. Had Ramanujan received formal training earlier, he might have:

a) Lost his intuitive approach to mathematics

b) Gained recognition sooner but with less originality

c) Developed proofs for his theorems more quickly

d) All are plausible outcomes

6. The Royal Society fellowship was ground breaking because it:

a) Validated colonial subjects' intellectual equality

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b) Broke the tradition of age-based eligibility

c) Recognized theorems without immediate applications

d) Prioritized talent over institutional pedigree

7. Ramanujan's early death most impacted:

a) Britain's scientific dominance

b) The trajectory of number theory research

c) Indian students' access to Cambridge

d) Public perception of mathematicians

8. Hardy's sadness at Ramanujan's death reveals:

a) Guilt over bringing him to England

b) Fear for his own academic legacy

c) Recognition of an irreplaceable mind

d) Cultural paternalism

9. The chapter's portrayal of Ramanujan's Brahmin identity:

a) Criticizes religious orthodoxy

b) Highlights colonial stereotypes

c) Shows tradition's dual role as barrier and anchor

d) Overemphasizes caste in scientific achievement

10. This story remains relevant today because it:

a) Warns against dismissing unconventional thinkers

b) Exemplifies South-North knowledge transfer

c) Questions metrics of academic worth

d) All of the above

LIVEWORKSHEETS

Here are 10 fun and challenging math riddles, each with four options and a mix of arithmetic, logic, and pattern recognition. Choose correct answers for each of them.

1. I am a 3-digit number. My tens digit is 5 more than my ones digit. My hundreds digit is 8 less than my tens digit. What number am I?

a) 194
b) 380
c) 490
d) 270

2. If you eat ¼ of a pizza and your friend eats ⅓ of the same pizza, how much is left?

a) ½
b) $^{5}/_{12}$
c) ⅙
d) ⅚

3. 3 cats catch 3 mice in 3 minutes. How long for 100 cats to catch 100 mice?

a) 3 minutes
b) 100 minutes
c) 300 minutes
d) 30 minutes

4. I have 4 sides, but not all equal. My angles add up to 360°. What am I?

a) Square
b) Rhombus

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c) Rectangle

d) Any quadrilateral

5. If it's 3:30 on a clock, what's the angle between the hour and minute hands?

a) 90°

b) 75°

c) 60°

d) 45°

6. A jar has 100 candies. You take out 20, eat half, and return 5. How many are left in the jar?

a) 85

b) 75

c) 95

d) 80

8. I'm an odd number. Take away a letter, and I become even. What number am I?

a) 5

b) 7

c) 9

d) 11

9. A father is 4 times as old as his son. In 10 years, he'll be 3 times as old. How old is the son now?

a) 10

b) 15

c) 20

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d) 5

10. What comes next? 2, 6, 12, 20, __

a) 24

b) 30

c) 36

d) 42

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