1. Jane is 9 years old and John is 5 years old. How old will John be when Jane is 15 years old?

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2. A textbook is opened at random. To what pages is it opened if the product of the facing pages is 110?

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3. Jane has a rope of length 23 cm. She wants to cut the rope so that she can form the biggest possible square, where the length of each side, in cm, is a whole number. What is the length of the rope that she must cut to form the square?

4. Find the missing term in the following sequence:

1, 2, 6, 24, _____, 720.

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5. On National Day, 39 soldiers lined up in a straight row on opposite sides of Stadium Street to welcome Prime Minister Lee. A soldier stands on each end of Stadium Street. The distance between two adjacent soldiers on either side was 20 m. The soldiers on one side were arranged such that each soldier filled the gap between two other soldiers on the opposite side. How long was Stadium Street?

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6. At a workshop, there are 10 participants. Each of them shakes hand once with one another. How many handshakes are there?

7. What is the least number of cuts required to cut 16 identical sausages so that they can be shared equally among 24 people?

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8. Charles has 16 marbles. He divides them into 4 piles so that each pile has a different number of marbles. Find the smallest possible number of marbles in the biggest pile.

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9. The total cost of a pen and a pencil is $2.90. The pen costs 60¢ more than the pencil. What much does the pen cost?

10. What are the last 2 digits of the sum $1 + 11 + 111 + \ldots + \underbrace{111\ldots111}_{50 \text{ digits}}$?

**End of paper**

| **Solutions** | |
|---|---|
| **1.** | 11 |
| **2.** | Page 10 and 11 |
| **3.** | 20 |
| **4.** | 120 |
| **5.** | 380 |
| **6.** | 45 |
| **7.** | 16 |
| **8.** | 6 |
| **9.** | $1.75 |
| **10.** | 40 |