

Spot the mistake relay and maths taboo for CBSE Class 10

CBSE Math Revision · CBSE Class 10 (Class 9 can try most of it) · Student sheet

Name _____

Class _____

Date _____

No calculator. Use $\pi = 22/7$ where a question says so.

Starter (5 minutes)

1. $(x + 3)^2 = x^2 + 9$
2. When $x = -3$, $3x^2 - 2x = 27 - 6 = 21$
3. In the AP with $a = 5$ and $d = 3$, $a_{10} = 5 + 10 \times 3 = 35$

Main activity (34 minutes)

Task A: Relay, part 1

Each worked solution has exactly one mistake. Find it, then give the correct answer.

- a. Find the area of a circle of diameter 14 cm. (Use $\pi = 22/7$.) *Working:* $\pi \times 14^2 = 22/7 \times 196 = 616 \text{ cm}^2$.
- b. Class intervals 0-10, 10-20, 20-30, 30-40 have frequencies 12, 3, 7, 8. Find the median.
Working: the class with the highest frequency is 0-10, so the median class is 0-10.
- c. Two coins are tossed. Find $P(\text{exactly one head})$. *Working:* the outcomes are 2 heads, 1 head, 0 heads, so $P = 1/3$.

Task B: Relay, part 2

Each worked solution has exactly one mistake. Find it, then give the correct answer.

- a. Solve $x^2 - 5x - 14 = 0$. *Working:* $(x - 7)(x + 2) = 0$, so $x = -7$ or $x = 2$.
- b. Find the sum of the first 20 terms of 4, 7, 10, ... *Working:* $S = 20/2 \times (2 \times 4 + 20 \times 3) = 10 \times 68 = 680$.
- c. Evaluate $\sin 60^\circ \cos 30^\circ + \cos 60^\circ \sin 30^\circ$. *Working:* $(\sqrt{3}/2)(\sqrt{3}/2) + (1/2)(1/2) = 3/4 + 1/2 = 5/4$.

Task C: Maths taboo

Describe the word to your team without saying it or any of the banned words.

- a. Describe **PERIMETER** without saying: around, edge, outside, length.
- b. Describe **PRIME** without saying: factor, divide, one, itself.
- c. Describe **MEDIAN** without saying: middle, average, centre, order.
- d. Describe **ZERO OF A POLYNOMIAL** without saying: root, solve, nothing, equals.

Extension

1. Find the roots of $x^2 - 6x + 9 = 0$. *Working: $D = 36 - 36 = 0$, so there are no real roots.*