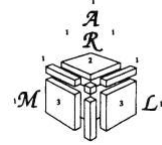


# 2009 ARML Local Competition



## Answer Compilation

**Note: If the units are omitted from an answer, the answer is not incorrect. If you are unsure about the correctness of an answer, contact Paul Dreyer at (310)383-3499 or [ARML.Local@gmail.com](mailto:ARML.Local@gmail.com).**

### Team Round:

- 1: (-6, 13)
- 2: -21
- 3: \$52 (or 52)
- 4:  $5\sqrt{11}$
- 5:  $\frac{49\sqrt{3}}{2}$
- 6: 8
- 7:  $\frac{25}{42}$
- 8: 1350
- 9:  $\frac{3\sqrt{3}}{10}$
- 10: 2,1,4,2,2 (accept equivalents, such as 21422 or (2,1,4,2,2))

### Theme Round:

- 1: 75
- 2: (4, 3)
- 3: (9, 8)
- 4: (39, 7)
- 5: (2/21, 3/7)
- 6: 1/202
- 7: (1/12, 1/4, 1/4, 5/12)
- 8: 2/9
- 9: (32.25%, 32.75%, 35%) or (129/400, 131/400, 7/20)
- 10: (5,6)

### Individual Round:

- |          |                      |
|----------|----------------------|
| 1: 45/14 | 2: 12                |
| 3: 34    | 4: 28                |
| 5: 1/6   | 6: 65280             |
| 7: 90    | 8: 12                |
| 9: 5     | 10: -1/8 (or -0.125) |

### Relay Round (Note that only the final answer needs to be correct to receive points):

- |                       |                                     |                               |
|-----------------------|-------------------------------------|-------------------------------|
| Relay Round 1-1: 24   | Relay Round 1-2: $\boxed{(-16,36)}$ |                               |
| Relay Round 2-1: 2009 | Relay Round 2-2: 97                 | Relay Round 2-3: $\boxed{24}$ |
| Relay Round 3-1: 1    | Relay Round 3-2: 2                  | Relay Round 3-3: 3            |
| Relay Round 3-4: 4    | Relay Round 3-5: 5                  | Relay Round 3-6: $\boxed{6}$  |