- 10. The events *C* and *M* are not mutually exclusive, so it is not true that P(C or M) = P(C) + P(M). Thus, the student needs to subtract the probability that a student is in both clubs to find the probability that a random student is in the Chess Club or the Math Club. P(C or M) = P(C) + P(M) - P(C and M)
- **12.** yes
- **13.** no
- **14.** no
- **15.** yes
- 16. The area of the triangle is half of the area of the rectangle because the rectangle and the triangle have the same base (50 cm) and the same height (40 cm). The probability that she will succeed is <sup>1</sup>/<sub>2</sub>, 0.5 or 50%.
- **17.** 0.72 or 72%
- **18.** 0.68 or 68%
- **19.** 0.28 or 28%
- **20.** 21%
- 21. a.  $\frac{25}{49}$

**b.** independent

- **22.** 32%
- **24. a.** 0.64 or 64%

**b.** 0.04 or 4%

**26.** (C)  $\frac{3}{16}$