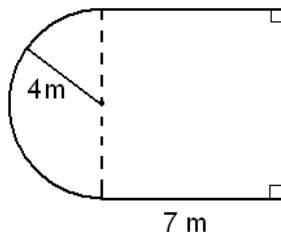
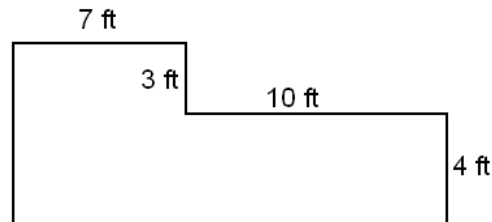


Review Problems

- Convert each of the following decimal to a fraction. You do NOT have to simplify the fraction.
 - 2.04
 - $0.\overline{24}$
 - $4.\overline{175}$
 - $0.\overline{176}$
- Compute $\binom{11}{3} + \binom{11}{6} - \binom{11}{9} - \binom{11}{10}$
- We borrow \$ 2000 for two years, with a simple annual interest rate of 7%. After 5 months, we make a partial payment of \$ 600. After an additional 9 months (that is, 14 months after the start), we make another partial payment of \$ 800. How much do we have to pay back at the end of the two years?
- A company performed 160% better than a year ago. If this year the company made a profit of \$ 11 700 000, how much was the profit a year ago?
- We placed \$ 800 into a bank account with an annual 5% compound interest rate. How much money is there in the account after forty years if the bank compounds
 - annually
 - monthly
 - daily
 - continuously
- Two sides of a right triangle are 20 cm and 21 cm. Find the third side.
- There were 54 people in the conference.
 - If everyone shook hands with everyone, how many handshakes took place?
 - If they were to elect a president, vice president, and a secretary, in how many different ways can that take place?
 - If they were to elect a three-person committee, in how many different ways can that take place?
- Find the distance between the points $(3, 8)$ and $(8, -4)$.
- Find the area and perimeter of the figure shown on the picture below.

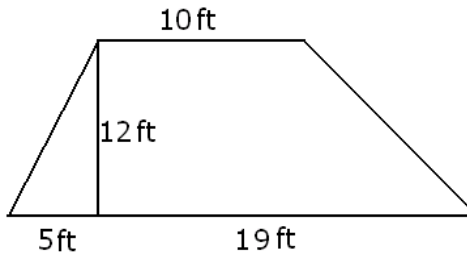


a)



b)

10. Consider the trapezoid shown on the picture below.



- a) Find the perimeter of the trapezoid. Include units in your computation and answer.
 b) Find the area of the trapezoid. Include units in your computation and answer.
11. Sally got a 6% raise. Now she is making \$1537 a month. How much was she making before the raise?
12. A sofa went on a 15% discount. The sale price is \$357. Find the original price.
13. All edges of a square-based pyramid are 8 cm long. Compute the height of the pyramid.

Review Problems - Answers

- 1.) a) $\frac{204}{100}$ b) $\frac{24}{99}$ c) $4\frac{175}{999} = \frac{4171}{999}$ d) $\frac{175}{990}$ 2.) 561 3.) \$777.76
- 4.) \$ 4 500 000 5.) a) \$5631.99 b) \$5886.73 c) \$5910.42 d) \$5911.24
- 6.) 29 cm or $\sqrt{41}$ cm 7.) a) 1431 b) 148 824 c) 24 804 8.) 13 units
- 9.) a) $P = (22 + 4\pi) \text{ m} \approx 34.566371 \text{ m}$ $A = (56 + 8\pi) \text{ m}^2 \approx 81.132741 \text{ m}^2$
 b) $P = 2(17 + 7) = 48 \text{ ft}$ $A = 89 \text{ ft}^2$ 10.) a) $P = 62 \text{ ft}$ b) $A = 204 \text{ ft}^2$
- 11.) \$1450 12.) \$420 13.) $\sqrt{32} = 4\sqrt{2} \text{ cm}$