

2. In 1626 the Wappinger Indians sold Manhattan for \$24. If they had put the \$24 into a bank account paying interest at a 5% rate, how much would the investment be worth in the year 2007 if interest were compounded annually?

$$24 \times .05 = 1.2$$

$$1.2 \times 381 = 457.2$$

$$457.2 + 24 = 481.2$$

\$481.20

3. Solve for x.

$$3x^2 - 2 = x$$

$$3x^2 - x - 2 = 0$$

$$(3x + 2)(x - 1) = 0$$

$$3x + 2 = 0 \text{ or } x - 1 = 0$$

$$3x = -2 \text{ or } x = 1$$

$$x = -\frac{2}{3}$$

$\{-\frac{2}{3}, 1\}$

10. A team physician has determined that of 100 athletes who were treated for minor back pain, 72 responded to an analgesic, 59 responded to a muscle relaxant, and 44 responded to both forms of treatment.

(a) How many athletes who were treated responded to the muscle relaxant but not the analgesic? 15 $59 - 44 = 15$

(b) How many athletes who were treated did not respond to either form of treatment? 13

100 total



$$100 - 87 = 13$$

2. Find the mean, median, range, and standard deviation for the given data

2, 3, 3, 3, 4

mean = $2+3+3+3+4 = 15 \div 5 = 3$

mean = 3

Median = 3

Range = $4-2 = 2$

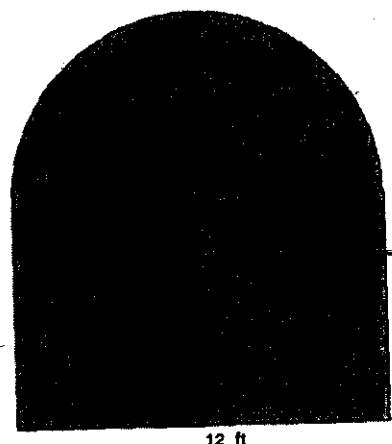
SD = $2-3 = -1^2 = 1$

SD = 1.41

$3-3 = 0$
 $3-3 = 0$
 $3-3 = 0$
 $4-3 = 1$
 $2 = 1 + \frac{1}{2} \sqrt{2} =$

9. Find the area and the perimeter of the figure

$\frac{1}{2} \pi r^2$ $a = 6^2 \cdot \pi \cdot \frac{1}{2} = 56.55 \text{ ft}^2$



$a = 12 \cdot 9 = 108 \text{ ft}^2$

56.55
 $+ 108$

 164.55 ft^2
 total area

$9 + 12 + 9 + (\frac{1}{2} \cdot 12 \cdot \pi) = 418.85 = \text{Perimeter}$

15. A survey of the Registrar of Voters office in Smallville showed the information shown in the table. What is the probability that a randomly selected voter in Smallville is a democrat? What is the probability that a randomly selected voter in Smallville is older than 50?

Age	Republican	Democrat	Other	
18-29	200	300	100	600
30-39	100	100	200	400
40-49	400	200	150	750
50+	200	400	100	700

1000 | 2450

$50+ = \frac{700}{2450} = \frac{14}{49} = \frac{2}{7}$

$\frac{1000}{2450} = \frac{20}{49}$ is the democrat probability

50+ = 2/7