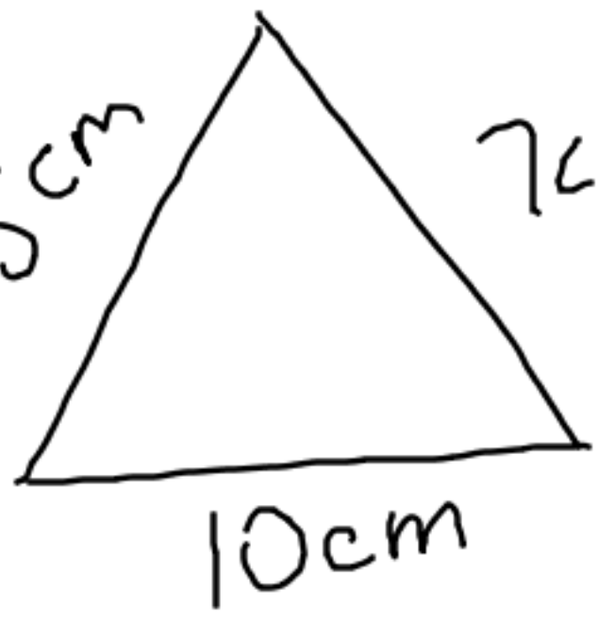
pg 149-150 Section 3.12 Jan. 10, 2013

62 a)



$$A = \sqrt{s(s-a)(s-b)(s-c)}$$

$$A = \sqrt{11(11-5)(11-7)(11-10)}$$

$$A = \sqrt{11(6)(4)(1)}$$

$$A = \sqrt{66(4)}$$

$$A = \sqrt{264}$$

$$A = 16.248$$

$$A = 16.3\,m^2$$

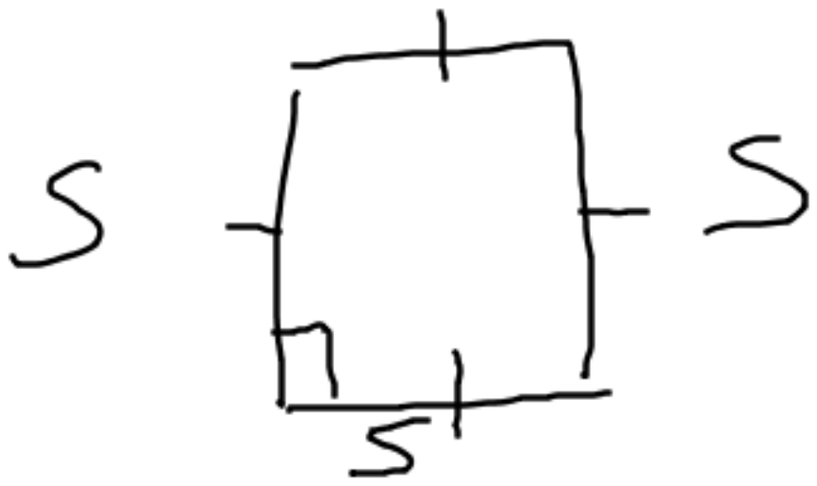
$$s = \frac{a+b+c}{2}$$

$$s = \frac{5+7+10}{2}$$

$$s = \frac{22}{2}$$

$$s = 11$$ (half the perimeter)

63. Given:



$A = L \times w$

$A = S \times S$

$A = S^2$

$\sqrt{10,000} = \sqrt{S^2}$

$S = 100$

$A = 1 ha = 10,000 m^2$

the dimensions of the field are 100m by 100m

b) $0.04 ha = 0.04(10,000)$

$= 400 m^2$

$A = S^2$

$\sqrt{400} = \sqrt{S^2}$

$S = 20$

The lot measures 20m by 20m

64. a)

$$A \doteq 0.433 s^2$$

$$\frac{15.6}{0.433} \doteq \frac{0.433 s^2}{0.433}$$

$$36.02 = s^2$$

$$s \doteq 6$$

$$s \doteq 6 \text{ cm}$$

Each side is approx 6 cm

68.

$$V = 20\sqrt{273+T}$$

$$V = 20\sqrt{273+16}$$

$$V = 20\sqrt{289}$$

$$V = 20(17)$$

$$V = 340 \text{ m/sec}$$

P.15 Exponents, Powers & Variables

1. 5^3 ← exponent
   ↖ base
   } power

2. 10^7 ← base
   ↖ exponent
   } power

3. $3 \times 3 \times 3 \times 3 \times 3$
   $= 3^5$

4. $2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 2$
   $= 2^8$

11. 5^2

$= 5 \times 5$

$= 25$

13. 2^5

$= 2 \times 2 \times 2 \times 2 \times 2$

$= 32$

15. 0^3

$= 0 \times 0 \times 0$

$= 0$

17. 5^x

$= 5 \times x \times x$

19. 3 to the fourth

$= 3^4$

34. 5^3

$= 125$

$5 \wedge 3 =$

$5 \; yx \; 3 =$

$x^y \; 3 =$

36. 7^3

$= 343$

40. 1.1^3

$= 1.3$

49. $7^2 + 3^2$

$= 49 + 9$

$= 58$

57. $7^2 + 3^3$

$= 49 + 27$

$= 76$

Hwk p. 149-150 finish
p. 15
p. back of rate of work handout