

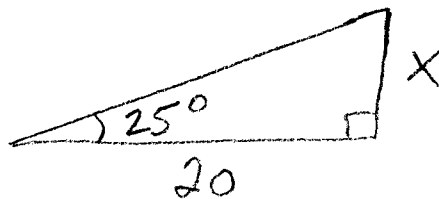
Alg. 1 - BE

TUESDAY

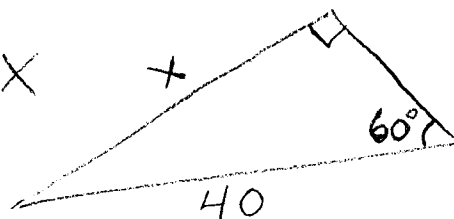
4-10-12

Use your trig. table OR A SCIENTIFIC CALCULATOR.

① Find side X



② Find side X



③ Change to SCIENTIFIC NOTATION: 0.0004205

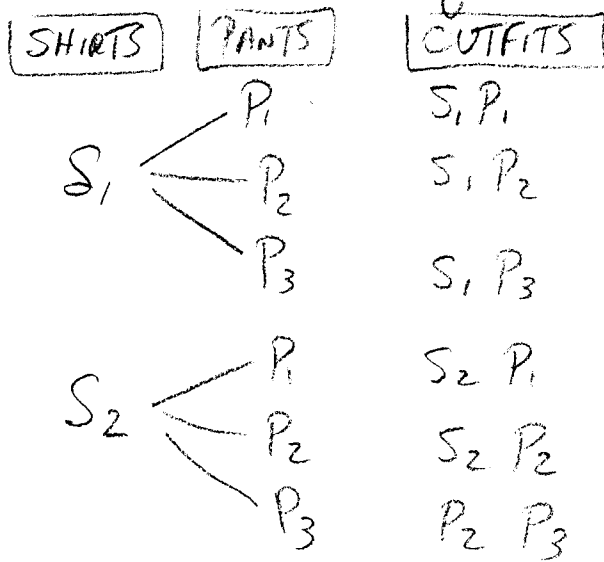
④ Change to STANDARD NOTATION: 6.42×10^5

⑤ Change to SCIENTIFIC NOTATION: 362×10^{-6}

• Homework Review: Pg 428/9 #1, 2, 26-29, 30-40, 44, 45, 51.
(even)

1.
Suppose you have 2 shirts and 3 pants,
how many outfits can you make?

CALL THE SHIRTS S_1, S_2 ; AND THE PANTS P_1, P_2, P_3
MAKE A TREE DIAGRAM



$$\boxed{2} \cdot \boxed{3} = \boxed{6}$$

FCP = FUNDAMENTAL COUNTING PRINCIPLE.

IF A FIRST EVENT HAS M OUTCOMES, AND
A SECOND EVENT HAS N OUTCOMES, THE TOTAL
NUMBER OF OUTCOMES IS $M \cdot N$

EX 3 jerseys, 2 pants, 2 shoes, how many outfits?

$$3 \cdot 2 \cdot 2 = \boxed{12 \text{ outfits}}$$

See Ex 1 Pg 754
CH 14-1 Counting Outcomes

How many ways to arrange 4 books on a shelf?

\uparrow \uparrow \uparrow \uparrow
 4 choices ? choices ? choices ? choices

$$4 \cdot 3 \cdot 2 \cdot 1 = 24$$

$4!$ Read four factorial
 means $4 \cdot 3 \cdot 2 \cdot 1$

(*) $N!$ means $N \cdot (N-1) \cdot (N-2) \cdot \dots \cdot 3 \cdot 2 \cdot 1$

Factorials get very big! (exclamation NOT factorial)

(EX) 24 students w/ 24 seats, how many seating charts are possible?

$$24! \approx 6.2 \times 10^{23}$$

CALCULATOR $\Rightarrow 6.204484017E23$

Practice using
 SCIENTIFIC NOTATION
 w/ scientific calculator.

• Homework • Read Ch 14-1 • Pg 756 # 1-8