

Solutions sheet No. 121			Area of a Triangle Rule				
Working using $A = \frac{1}{2}bc\sin A$							
No.	b	c	A	Equation	Calculator	Rounded	Solution
1	15	16	43°	$A = \frac{1}{2} \times 15 \times 16 \times \sin 43^\circ$	129.95022	130	$A = 130 \text{ units}^2$
2	20	25	78°	$A = \frac{1}{2} \times 20 \times 25 \times \sin 78^\circ$	817.08831	817.1	$A = 817.1 \text{ units}^2$
3	18	24	69°	$A = \frac{1}{2} \times 18 \times 24 \times \sin 69^\circ$	590.37009	590.4	$A = 590.4 \text{ units}^2$
4	15	30	98°	$A = \frac{1}{2} \times 15 \times 30 \times \sin 98^\circ$	1250.2558	1250.3	$A = 1250.3 \text{ units}^2$
5	75	80	43°	$A = \frac{1}{2} \times 75 \times 80 \times \sin 43^\circ$	3248.7556	3248.8	$A = 3248.8 \text{ units}^2$
6	10	12	38°	$A = \frac{1}{2} \times 10 \times 12 \times \sin 38^\circ$	54.877419	54.9	$A = 54.9 \text{ units}^2$
7	7.2	7.6	37°	$A = \frac{1}{2} \times 7.2 \times 7.6 \times \sin 37^\circ$	22.19733	22.2	$A = 22.2 \text{ units}^2$
8	32	50	61°	$A = \frac{1}{2} \times 32 \times 50 \times \sin 61^\circ$	1972.6092	1972.6	$A = 1972.6 \text{ units}^2$
9	65	80	49°	$A = \frac{1}{2} \times 65 \times 80 \times \sin 49^\circ$	3801.9861	3802	$A = 3802 \text{ units}^2$
10	8.7	10.3	42°	$A = \frac{1}{2} \times 8.7 \times 10.3 \times \sin 42^\circ$	48.593584	48.6	$A = 48.6 \text{ units}^2$
11	15.2	16.7	27°	$A = \frac{1}{2} \times 15.2 \times 16.7 \times \sin 27^\circ$	57.583808	57.6	$A = 57.6 \text{ units}^2$
12	22	32	47°	$A = \frac{1}{2} \times 22 \times 32 \times \sin 47^\circ$	547.74631	547.7	$A = 547.7 \text{ units}^2$
13	25	30	102°	$A = \frac{1}{2} \times 25 \times 30 \times \sin 102^\circ$	1836.8675	1836.9	$A = 1836.9 \text{ units}^2$
14	30	35	77°	$A = \frac{1}{2} \times 30 \times 35 \times \sin 77^\circ$	1652.6028	1652.6	$A = 1652.6 \text{ units}^2$
15	35	40	47°	$A = \frac{1}{2} \times 35 \times 40 \times \sin 47^\circ$	915.40459	915.4	$A = 915.4 \text{ units}^2$
16	50	75	71°	$A = \frac{1}{2} \times 50 \times 75 \times \sin 71^\circ$	5683.2388	5683.2	$A = 5683.2 \text{ units}^2$
17	80	100	82°	$A = \frac{1}{2} \times 80 \times 100 \times \sin 82^\circ$	14173.23	14173	$A = 14173.2 \text{ units}^2$
18	210	220	29°	$A = \frac{1}{2} \times 210 \times 220 \times \sin 29^\circ$	11685.139	11685	$A = 11685.1 \text{ units}^2$
19	10	11	89°	$A = \frac{1}{2} \times 10 \times 11 \times \sin 89^\circ$	217.16047	217.2	$A = 217.2 \text{ units}^2$
20	6.3	6.9	39°	$A = \frac{1}{2} \times 6.3 \times 6.9 \times \sin 39^\circ$	19.73493	19.7	$A = 19.7 \text{ units}^2$