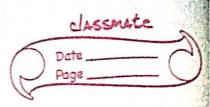
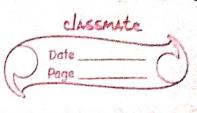


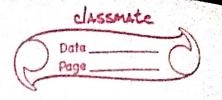
| 78 | Prove that Sona + 1+ Cosa = 2 Cosus |
|--|--|
| 4 | 1+ cosa Soma |
| | |
| | L.H-S - Scina + H-Cosa |
| | It cos o Sono. |
| (m =) : | the state of the s |
| | = Sono-Sona + (1+600) (1+608a). |
| | (1+ Cosa) (SONO) |
| ŗ. | = Sonda + 1+ Cosa+ Cosa+ Cosaa. |
| | (1+ Cosa) (Scha) |
| | |
| 11 | = Sunda+ Costa+1+2 Cosa. |
| To any property of the second | (1+ cos a) Sina |
| 4.0 | |
| | = 1+1+2 COSQ = 2+2 CosQ |
| | (It GOSCO) Schoo (It Gosco) Schoo |
| | = 2 C 1 + Co80) |
| The state of the s | (1+ Cos a) Scna |
| 10 v 50 | the state of the s |
| | 5000 = 20 - 2 Cosero |
| | = R-H-S. |
| | |
| | |
| | |



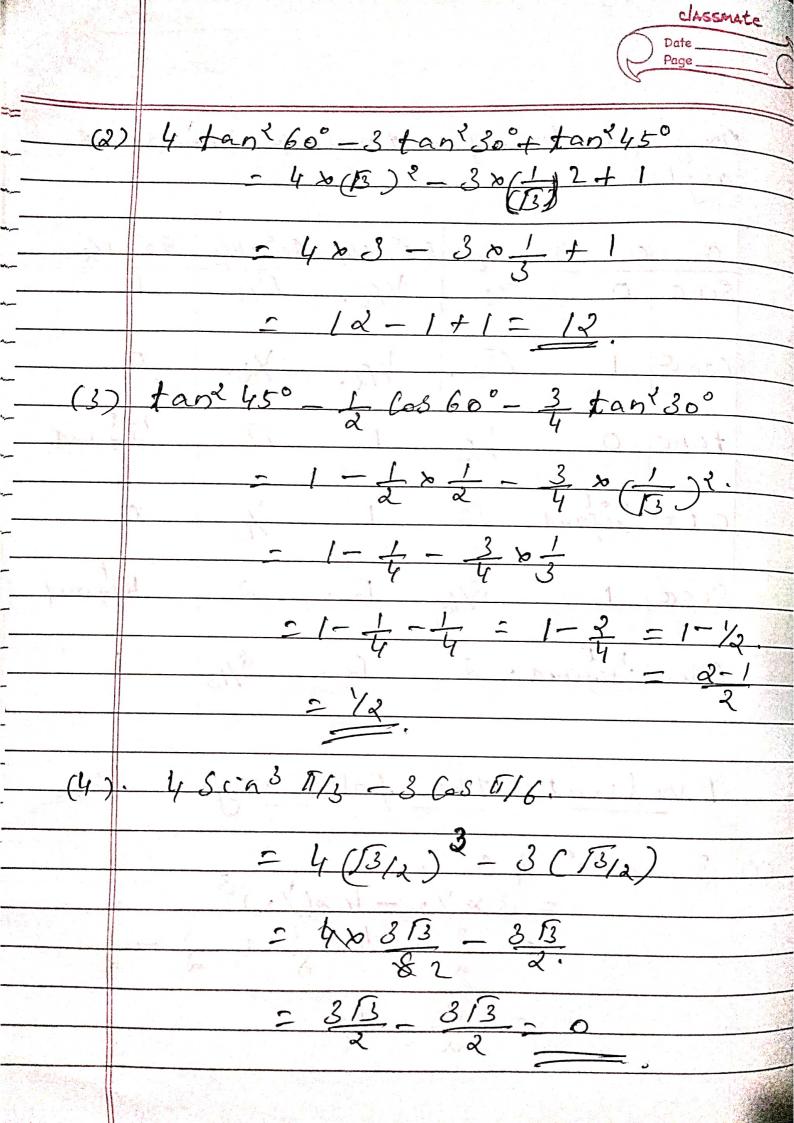
| 8 | CoseCA + CoseA - 2 See A |
|------|---------------------------------------|
| 3 | CosceA-1 CosceA+1 |
| | |
| | L.H.S = CoseCA + CoseeA |
| | CoseeA+1 CoseeA+1 |
| | = (osca (Coseca+1) + Cosea (CoselA+1) |
| | (CosseA-1) (CosseA+1) |
| | |
| 2.43 | = CoSed A + CoseA + CoseA - CoseA |
| | Coscet A -1 |
| | |
| 20 | = 2 hoseed A = 2 x 1 x tania |
| | Cot A Son A |
| | |
|) y. | Schel A Cost A |
| | |
| | = 2×See2 A = R. H5. |
| | |
| 9. | Prove that SIASONA - SLEAT tang |
| | 1-3cnA |
| | L.A-S = [I+SUDA |
| | J 1-800A |
| | = FITSONA STTSONA |
| | II-Sin A Iltsina. |
| | |

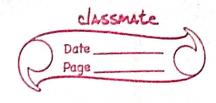


(TITSUNA) (1-SUNA) (ItSiNA) = (CC+ScnA)2) - SeeA + tanA Problems 1. If Scre= 2/5 and o is an acute angle, find cosa and tana. 2. 9f tand- 3 and a is an acute angle, fond Secon and Coseca. 3. Prove the following nountcities (a) Son A Cot A = Cos A (B) Sond A - CostA = 1-2 CostA (C) (SCOP+COSA) = Support & SchA CosA 4. Prove that 15cma - cosa 1-sona. 1+ cosa + Suna = a cosiea. 5. Show that CosA + SonA - SonA+ CosA 1-tenA 1-cotA 6. Prove that

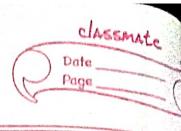


| | Trugo | nometric fe | nctions | of 3t | enderd | |
|-----|---|----------------------|---------------|--|-------------|--|
| | angla | 6 | | | | |
| | 0 | 0° 30°= 11/6 | 450=11/4 | 60°=11/2 | 900=11/2 | |
| | Sina | 0° 30°= 11/6 0 /2 | 1/2. | 13/2 | | |
| | C05 Q | 1 53/2. | 1/2. | \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ | 0 | |
| u * | tano | har tes | , & | \(\frac{1}{8}\) | not defined | |
| | | //3 | × 1 1 | 7.8 | agang | |
| | coto | not defined 53 | ~ \ _ / ~ ~ \ | /13 | .0 | |
| | Sieo | 2/3 | · [2. | 2 | hefored | |
| | (2610 | not befored. 2 | [2. | 2/13 | 1 | |
| | COSC CE | - Augerius | - 1 3 | 713 | | |
| | Evaluate the following. (1) $3 \sin 30^{\circ} = 4 \cos^{3} 60^{\circ}$ $= 3 \times 42 - 4 \times (4)^{3}$ $= 3 - 4 \times 1 = 3 - 1$ $= 2 - 4 \times 1 = 3 - 1$ | | | | | |
| | | | | | | |
| Ct) | | | | | | |
| | | | | | | |
| | | | | | | |
| | d | | | | | |





| (5) | Prove that tan 45-tanso = 2-13 |
|--|--|
| | 1+ tanystanso |
| | A second of the |
| | tan 45-tan 30 = 1-4B |
| | 1+ tan 45 tan 30 1+ 1/6. |
| | |
| | = (53-1)/13 = 53-1 |
| | (13+1)/S 13+1 |
| 7 2 3 | Drac |
| 16. 077 077 077 077 077 | Manufator and denominator |
| 4 | multiplied by 53-1 |
| | The same of the sa |
| | $(\sqrt{3}-1)(\sqrt{3}-1) = 3-2\sqrt{3}+1$ |
| | = (13+1)(13-1) 3-1 |
| Henry | |
| | $=\frac{4-213}{2}=2(2-13)$ |
| | 2 |
| <i>.</i> | = $2-13$ |
| | |
| (6) | Prove that tap60 - tap45 = 2-13 It tap60 tap45 |
| (0) | 1+ fas 60 tas 45 |
| | |
| | ten60-tan45 = 53-1 = 53-1 |
| £ | ten60-tan15 = 53-1 = 53-1 1+tan60 ten45 1+13 53+1 |
| | |



Municator and denominator multiplied by 13-1

(B+1)(B-1)

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

= 2(2-13) = 2-13

Q. Bralnate Son's Filz Cost Tily Lan 5/6.

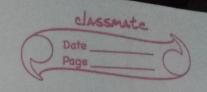
Son 3 Fils cost Fily ton Fil6

= Son 3 60° Cost 45° tan 30°

- (53/2)3 (1/2)21/13

= 3/3 × 1/ × 1/3

Car that



workout problems.

- 1. If tanc=3, o is acute fond some and coso.

 2. Show that Sino + 1- coso 2 cosieco.

 1- coso Sono
- 3. Phove that Seco + Seco = 2 Cosed a Seco+1 Seco-1 4. Pralmate. Cos60° Cos30° + Son 60° Son30°
- 5- Fevaluate 4 Son3 116-3 Cos 5/6.
- 6. 26 0 = 30° Verry that Sinda = 2 tana
- 7. Evaluate Son Alax Cos Tilys tan Tils
- 8. Evaluate 2 Cosce T/2 4 See T/4.
- 9. Eveluate 3 at Mg 2 tan 1/6.