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17.) $$1+\sin p = 2\sin^2(45° + \frac{1}{2}p) \quad 1-\sin p = 2\sin^2(45° - \frac{1}{2}p)$$ (T-17)

18.) $$\frac{1+\sin p}{1-\sin p} = \mathrm{tg}^2(45° + \frac{1}{2}p) \quad \frac{1+\sin p}{\cos p} = \mathrm{tg}(45° + \frac{1}{2}p)$$ (T-18)

19.) $$\frac{1+\mathrm{tg}\, p}{1-\mathrm{tg}\, p} = \mathrm{tg}(45° + p) \quad \frac{1-\mathrm{tg}\, p}{1+\mathrm{tg}\, p} = \mathrm{tg}(45° - p)$$ (T-19)

20.) $$\sin(30° + p) = \cos p - \sin(30° - p)$$ (T-20)

21.) $$\cos(30° + p) = \cos(30° - p) - \sin p$$ (T-21)

22) $$\sin(60° - p) = \sin(60° + p) - \sin p$$ (T-22)

23) $$\cos(60° - p) = \cos p - \cos(60° + p)$$ (T-23)

24.) (T-24)
$$2\sin^2 p = 1 - \cos 2p$$
$$4\sin^3 p = 3\sin p - \sin 3p$$
$$8\sin^4 p = \cos 4p - 4\cos 2p + 3$$
$$16\sin^5 p = \sin 5p - 5\sin 3p + 10\sin p$$

25) (T-25)
$$2\cos^2 p = 1 + \cos 2p$$
$$4\cos^3 p = \cos 3p + 3\cos p$$
$$8\cos^4 p = \cos 4p + 4\cos 2p + 3$$
$$16\cos^5 p = \cos 5p - 5\cos 3p + 10\cos p$$

26.) (T-26)
$$\sin 2p = 2\sin p\cos p$$
$$\sin 3p = 3\sin p \cdot \cos^2 p - \sin^3 p$$
$$\sin 4p = 4\sin p \cdot \cos p(\cos^2 p - \sin^2 p)$$
$$\sin n\,p = \sin(n-1)\,p \cdot \cos p + \cos(n-1)\,p \cdot \sin p$$

27.) (T-27)
$$\cos 2p = \cos^2 p - \sin^2 p = 2\cos^2 p - 1 = 1 - 2\sin^2 p$$
$$\cos 3p = \cos^3 p - 3\sin^2 p \cdot \cos p$$
$$\cos 4p = \cos^4 p - 6\sin^2 p[\cdot]\cos^2 p + \sin^4 p$$
$$\cos n\,p = 2\cos(n-1)p \cdot \cos p - \cos(n-2)\,p$$

B.

28.) $$\sin(p+q) = \sin p\cos q + \cos p\sin q$$ (T-28)

29.) $$\sin(p-q)=\sin p\cos q-\cos p\cdot\sin p \qquad \text{(T-29)}$$

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30.) $$\cos(p+q)=\cos p\cdot\cos q-\sin p[\cdot]\sin q \qquad \text{(T-30)}$$

31.) $$\cos(p-q)=\cos p\cdot\cos q+\sin p[\cdot]\sin q \qquad \text{(T-31)}$$

32.) $$\operatorname{tg}(p+q)=\frac{\operatorname{tg}p+\operatorname{tg}q}{1-\operatorname{tg}p\cdot\operatorname{tg}q}=\frac{\operatorname{ctg}p+\operatorname{ctg}q}{\operatorname{ctg}p\cdot\operatorname{ctg}q-1} \qquad \text{(T-32)}$$

33.) $$\operatorname{tg}(p-q)=\frac{\operatorname{tg}p-\operatorname{tg}q}{1+\operatorname{tg}p\cdot\operatorname{tg}q}=\frac{\operatorname{ctg}q-\operatorname{ctg}p}{\operatorname{ctg}p[\cdot]\operatorname{ctg}q+1} \qquad \text{(T-33)}$$

34.) $$\operatorname{ctg}(p+q)=\frac{\operatorname{ctg}p\cdot\operatorname{ctg}q-1}{\operatorname{ctg}p+\operatorname{ctg}q}=\frac{1-\operatorname{tg}p[\cdot]\operatorname{tg}q}{\operatorname{tg}p+\operatorname{tg}q} \qquad \text{(T-34)}$$

35.) $$\operatorname{ctg}(p-q)=\frac{\operatorname{ctg}p[\cdot]\operatorname{ctg}q+1}{\operatorname{ctg}q-\operatorname{ctg}p}=\frac{1+\operatorname{tg}p\cdot\operatorname{tg}q}{\operatorname{tg}p-\operatorname{tg}q} \qquad \text{(T-35)}$$

36.) $$\sin p\cdot\sin q=\frac{1}{2}\cos(p-q)-\frac{1}{2}\cos(p+q) \qquad \text{(T-36)}$$

37.) $$\cos p\cdot\cos q=\frac{1}{2}\cos(p-q)+\frac{1}{2}\cos(p+q) \qquad \text{(T-37)}$$

38.) $$\sin p\cdot\cos q=\frac{1}{2}\sin(p+q)+\frac{1}{2}\sin(p-q) \qquad \text{(T-38)}$$

39.) $$\cos p\cdot\sin q=\frac{1}{2}\sin(p+q)-\frac{1}{2}\sin(p-q) \qquad \text{(T-39)}$$

40.) $$\sin p+\sin q=2\sin\frac{1}{2}(p+q)\cdot\cos\frac{1}{2}(p-q) \qquad \text{(T-40)}$$

41.) $$\sin p-\sin q=2\cos\frac{1}{2}(p+q)\cdot\sin\frac{1}{2}(p-q) \qquad \text{(T-41)}$$

42.) $$\cos p+\cos q=2\cos\frac{1}{2}(p+q)[\cdot]\cos\frac{1}{2}(p-q) \qquad \text{(T-42)}$$

43.) $$\cos q - \cos p = 2\sin\frac{1}{2}(p+q)\cdot\sin\frac{1}{2}(p-q) \qquad \text{(T-43)}$$

44.) $$\operatorname{tg} p + \operatorname{tg} q = \frac{\sin(p+q)}{\cos p\cdot\cos q}; \qquad \operatorname{tg} p - \operatorname{tg} q = \frac{\sin(p-q)}{\cos p\cdot\cos q} \qquad \text{(T-44)}$$

45.) $$\cot \mathrm{p} + \cot \mathrm{q} = \frac{\sin(\mathrm{p}+\mathrm{q})}{\sin \mathrm{p}\cdot\sin \mathrm{q}}; \qquad \cot \mathrm{p} - \cot \mathrm{q} = \frac{\sin(\mathrm{q}-\mathrm{p})}{\sin \mathrm{p}\cdot\sin \mathrm{q}} \qquad \text{(T-45)}$$

46.) $$\cot \mathrm{p} + \operatorname{tg} \mathrm{q} = \frac{\cos(\mathrm{p}-\mathrm{q})}{\sin \mathrm{p}[\cdot]\cos \mathrm{q}}; \qquad \cot \mathrm{p} - \operatorname{tg} \mathrm{q} = \frac{\cos(\mathrm{p}+\mathrm{q})}{\sin \mathrm{p}\cdot\cos \mathrm{q}} \qquad \text{(T-46)}$$

47.) $$\frac{\sin p + \sin q}{\sin p - \sin q} = \frac{\operatorname{tg}\frac{1}{2}(p+q)}{\operatorname{tg}\frac{1}{2}(p-q)} = \operatorname{tg}\frac{1}{2}(p+q)[\cdot]\cot\frac{1}{2}(\mathrm{p}-\mathrm{q}) \qquad \text{(T-47)}$$

48.) $$\frac{\cos p + \cos q}{\cos p - \cos q} = \frac{\cot\frac{1}{2}(\mathrm{p}+\mathrm{q})}{\operatorname{tg}\frac{1}{2}(q-p)} = \cot\frac{1}{2}(\mathrm{p}+\mathrm{q})[\cdot]\cot\frac{1}{2}(\mathrm{q}-\mathrm{p}) \qquad \text{(T-48)}$$