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## Letters

### Weird quarks

Now that the sixth (top) quark has apparently  
been found ("Glimpsing the top of the particle  
pile," SN: 7/14/84, p. 21), it is time to start worry-  
ing about what to call the seventh and eighth  
quarks if and when they show up. I suggest  
"weird" and "magical." This maintains the pat-  
tern of the previous quarks:

1st	down	up
2nd	strange	charmed
3rd	bottom	top
4th	weird	magical

Similarly, I suggest "low" and "high" for the  
two after that.

Bobby Baum  
Bethesda, Md.

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(Illustration: Al Kettler)

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### Cutting down on time in space

Obviously an earth-mounted telescope can  
observe the stars only at night, but why is the  
Space Telescope usable only for 3,000 hours a  
year (8.22 hours per day), as stated in "As-  
tronomical rush for time in space" (SN: 6/23/84,  
p. 392)? I suppose that at any time of day it will  
be turned to that part of the heavens away from  
the sun. If it cannot be used when sunlight is  
hitting it, I am surprised that it has even 8.22  
hours of availability.

J. B. Lawrence  
San Bernardino, Calif.

Various amounts of operational downtime for  
testing, maintenance and moving the telescope's  
orientation from one object to another (18 min-  
utes for a 90° move) must be subtracted. Fur-

thermore the telescope cannot point closer than  
50° to the sun, 70° to the earth's bright limb and  
15° to the moon. All this cuts out time and also  
imposes constraints on the scheduling of par-  
ticular targets.  
—D. E. Thomsen

### Candid camera

Dietrick Thomsen asks where Theodore Kalu-  
za was when the two photographs were taken of  
Oskar Klein and friends ("Kaluza-Klein: The  
Koenigsberg Connection," SN: 7/7/84, p. 12).

Maybe Kaluza snapped the pictures.  
B. D. Mills  
Seattle, Wash.

More likely it was Goudsmit's and Uhlenbeck's  
teacher, Paul Ehrenfest, who liked to snap pic-  
tures of visitors.  
—D. E. Thomsen

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