

does not occupy time there. In this case, therefore, where the motion of a thing is continuous, it is impossible to use this form of expression. On the other hand in the case of a thing that turns back in its course we must do so. For suppose G in the course of its locomotion proceeds to D and then turns back and proceeds downwards again: then the extreme point D has served as beginning and end for it, one point thus serving as two: therefore A must have come to a stand there; it cannot have come to be at D and departed from D simultaneously, for in that case it would simultaneously be there and not be there at the same now. And here we cannot apply the same solution: we cannot argue that G is at D at a sectional point of time and has not come to be or ceased to be there. For here the goal that is reached is necessarily one that is actual, not potential. Now the points in the middle are potential; but this one is actual, and regarded from below it is an end, while regarded from above it is a beginning, so that it stands in these same relations to the motions. Therefore that which turns back in traversing a rectilinear course must come to a stand. Consequently there cannot be a continuous rectilinear motion that is eternal.

The same method should also be adopted in replying to those who ask, in the terms of Zeno's argument, whether we admit that before any distance can be traversed half the distance must be traversed, that these half-distances are infinite in number, and that it is impossible to traverse distances infinite in number—or some put the same argument in another form, and would have us grant that in the time during which a motion is in progress we should first count the half-motion for every half-distance that we get, so that we have the result that when the whole distance is traversed we have counted an infinite number, which is admittedly impossible. Now in our first discussions of motion we put forward a solution of this difficulty turning on the fact that the period of time contains within itself an infinite number of units: there is no absurdity, we said, in supposing the traversing of infinite distances in infinite time, and the element of infinity is present in the time no less than in the distance. But, although this solution is adequate as a reply to the questioner (the question asked being whether it is impossible in a finite time to traverse or count an infinite number of units), nevertheless as an account of the fact and the truth it is inadequate. For suppose the distance to be left out of account and the question asked to be no longer whether it is possible in a finite time to traverse an infinite number of distances, and suppose that the inquiry is made to refer to the time itself (for the time contains an infinite number of divisions): then this solution will no longer be adequate, and we must apply the truth that we enunciated in our recent discussion. In the act of dividing the continuous distance into two halves one point is treated as two, since we make it a beginning and an end; and this same result is produced by the act of counting halves as well as by the act of dividing into halves. But if divisions are made in this way, neither the distance nor the motion will be continuous; for motion if it is to be continuous must relate to what is continuous; and though what is continuous contains an infinite number of halves, they are not actual but potential halves. If he makes the halves actual, he will get not a continuous but an intermittent motion. In the case of counting the halves, it is clear that this result

263^b follows; for then one point must be reckoned as two: it will be the end of the one half and the beginning of the other, if he counts not the one continuous whole but the two halves. Therefore to the question whether it is possible to pass through an infinite number of units either of time or of distance we must reply that in a sense it is and in a sense it is not. If the units are actual, it is not possible; if they are potential, it is possible. For in the course of a continuous motion the traveller has traversed an infinite number of units in an accidental sense but not in an unqualified sense; for though it is an accidental characteristic of the distance to be an infinite number of half-distances, it is different in essence and being.

It is also plain that unless we hold that the point of time that divides earlier from later always belongs only to the later so far as the thing is concerned, we shall be involved in the consequence that the same thing at the same moment is and is not, and that a thing is not at the moment when it has become. It is true that the point is common to both times, the earlier as well as the later, and that, while numerically one and the same, it is not so in definition, being the end of the one and the beginning of the other; but so far as the thing is concerned it always belongs to the later affection. Let us suppose a time ACB and a thing D, D being white in the time A and not white in the time B. Then D is at C white and not white; for if we were right in saying that it is white during the whole time A, it is true to call it white at any moment of A, and not white in B, and C is in both A and B. We must not allow, therefore, that it is white in the whole of A, but must say that it is so in all of it except the last now C. C already belongs to the later period, and if in the whole of A not white was becoming and white perishing, at C it had become or perished. And so either that is the first moment at which it is true to call the thing not white;⁵³ or a thing may not be at the moment when it has become and may be at the moment when it has perished; or else things must at the same time be white and not white and in general be and not be. Further, if anything that is after having previously not been must become being and is not when it is becoming, time cannot be divisible into indivisible times. For suppose that D was becoming white at A and that at another indivisible time B, consecutive with A, D has already become white and so is white at that moment: then, inasmuch as at A it was becoming white and so was not white and at B it is white, there must have been a becoming between A and B and therefore also a time in which the becoming took place. On the other hand, those who deny indivisibles are not affected by this argument: according to them it has become and is white at the last point of the actual time in which it was becoming white; and this point has no other point consecutive with or in succession to it, whereas indivisible times are successive. Moreover it is clear that if it was becoming white in the whole time A, there was no more time in which it had become and was becoming than the total of the time in which it was merely becoming.

These and such-like, then, are the arguments on which one might rely as being appropriate to the subject matter. If we look at the question generally, the same result would also appear to be indicated by the following arguments. Everything

⁵³Omitting *λευκόν* at line 23; the received text reads: '... call the thing white or not white'.