Learner: Date:

**Wiring systems**

**Aims and objectives**

At the end of this activity sheet, you should be able to:

use the IET *On-site Guide* recommendations for fixing and capacities of wiring systems

create a simple spreadsheet to complete the capacity calculations.

You will require a copy of the IET *On-site Guide* for this activity.

**1** State the maximum permitted spacing between supports for the following cables. You will need to determine the overall diameter of the cable.

|  |  |
| --- | --- |
| **Cable** | **Space** |
| 4 mm2 flat twin and CPC cable run horizontally in a generally accessible area |  |
| 1.5 mm2 three-core SWA cable run vertically |  |
| 2L2.5 MICC cable run horizontally |  |

**2** State the minimum height for a cable span above a road crossing.

**3** For the following conduits, state the maximum distance between supports.

|  |  |
| --- | --- |
| **Conduit** | **Maximum distance** |
| 20 mm steel run vertically |  |
| 25 mm rigid PVC run horizontally |  |
| 20 mm steel run horizontally |  |

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**4** Determine the minimum size of short straight conduit permitted to accommodate all of the following:

6 × 1.5 mm2 stranded conductors

2 × 2.5 mm2 stranded conductors

2 × 4 mm2 stranded conductors

Total

**5** Determine, for the following conduit installations, the minimum permitted conduit size to accommodate 8 × 2.5 mm2 stranded cables where the conduit has the following number of bends.

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Length** | **Number of bends** | **Minimum size** |
| A | 5 m | 1 |  |
| B | 2 m | 4 |  |
| C | 3.5 m | 3 |  |
| D | 1 m | 1 |  |
| E | 4 m | 2 |  |