M1. (a) from K to L

*correct order only*

smaller than

(c) 4 N

(d) the limit of proportionality is reached when a weight of 7N is added to the spring

*accept any number from 6.8 to 7.2 inclusive*

(e) the extension is directly proportional to the weight.

(f) C

M2. (a) B or bungee cords
C or springs or playground ride

*each additional answer loses 1 mark minimum mark zero*

will go back to original shape/size

(b) (i) newton

(ii) $0 - 5 \text{ (N)}$ or 5

*accept $1 - 5 \text{ (N)}$

*do not accept 4*

(iii) 16 (cm)

(iv) 2.5 (N)

*accept answer between 2.4 and 2.6 inclusive*
(a) (i) plasticine stretches/snaps
    stays stretched/snapped
    for 1 mark each
    2

(ii) spring compresses OWTTE
    returns to original length/shape or gets longer
    for 1 mark each
    2

(iii) ruler bends/breaks
    returns to original shape or stays broken
    for 1 mark each
    2

(b) (i) 1.5N
    for 1 mark
    1

(ii) 4 cm
    for 1 mark
    1

(iii) 19 cm
    for 1 mark
    1

[9]
(b) spring compresses OWTTE
returns to original length/gets longer
_for 1 mark each_