

Find the Hidden Object

64m in 2sec  $v=?$

15N  $\uparrow$  + 5N  $\uparrow$  + 15N  $\uparrow$  + 5N  $\uparrow$

108 mi in 9 min  $v=?$

16 m/min for 2 min  $d=?$

24 inches in 1.5 minutes  $v=?$

64 kilometers in 4 minutes  $v=?$

6 mm/sec for 3 sec  $d=?$

55N  $\uparrow$  + 16N  $\downarrow$

There is no change in motion

The large parachute had the most air resistance.

A ball rolls to the right (there is motion)

8 m/s for 4 sec  $d=?$

4 km/hr for 3 hr  $d=?$

32 meters in 2 sec  $v=?$

8 km/min for 4 min  $d=?$

Pulling your hair into a ponytail

This slowed the helicopter as it fell.

There is less of this force on ice.

Design #1 fell at 1.8 m/s

Design #3 fell at 1.6 m/s

Design #2 fell at 2 m/s

Design #4 fell at 1.7 m/s

Your hair blows back as you run

24N  $\uparrow$  + 6N  $\downarrow$  + 18N  $\downarrow$

Pulling on your jacket

Give a hug!

A bug crawls 24 inches in 1.5 minutes

Sliding down a slide

96 km in 8 min  $v=?$

The large parachute fell 2m in 3.7 sec

Vectors are equal in size

Net force is 8N

Diagram of a person on a slide with forces:  $\uparrow ?N$ ,  $\downarrow 32N$

Results, Compression, or 16  $\rightarrow$  Grey (pencil)

Balanced force, Tension, or 18  $\rightarrow$  Yellow

Conclusion, Friction, or 32  $\rightarrow$  Orange

Unbalanced force, Air resistance, or 12  $\rightarrow$  Pink