

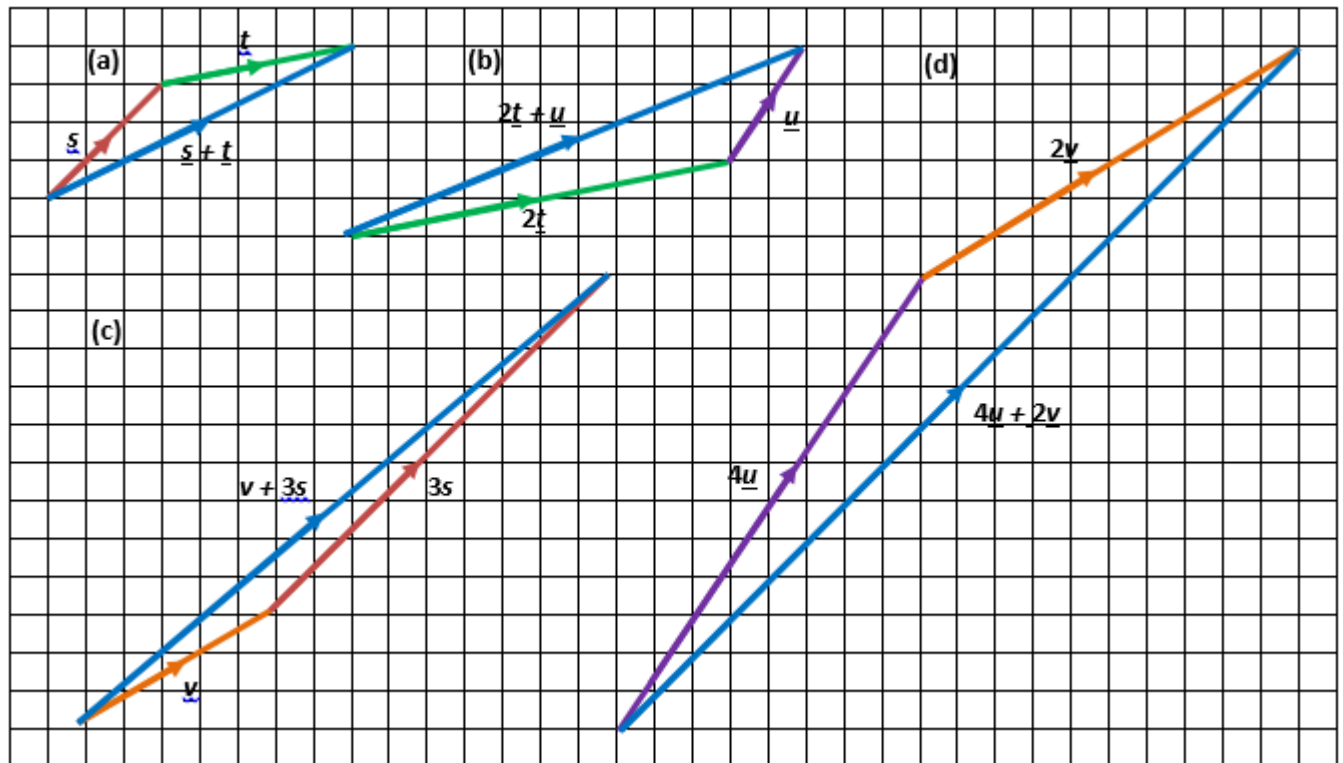


- 39.2m²
 - 73.4m²
 - 11311.7m²
- 5.6cm
 - 4.306°
 - 10.0cm
 - 5.2cm
 - 78.5°
- 4.7m
- Areas – Triangle = 22.1m² Rectangle = 92.56m² Total = 114.66m²

12 litres covers 108m² so it is not enough paint.
- Areas – Triangle = 0.54m² Rectangle = 1.98m² Total = 2.52m²

150ml covers 3m² so it is enough varnish.
- 149°
- 124°
- 119°
- 13.91km
- 39.32km

11.



12. $A(0, 0, 1)$ $B(5, 0, 1)$ $C(5, 0, 0)$ $D(0, 3, 1)$

$E(5, 3, 1)$ $F(5, 3, 0)$ $G(0, 3, 0)$ $O(0, 0, 0)$

13. $A(12, 0, 0)$ $B(12, 3, 0)$ $C(0, 3, 0)$ $D(0, 0, 5)$

$E(0, 3, 5)$ $F(12, 3, 5)$ $G(12, 0, 5)$ $O(0, 0, 0)$

14. $O(0, 0, 0)$ $M(8, 0, 0)$ $N(8, 8, 0)$ $P(0, 8, 0)$ $Q(4, 4, 9)$

15. **a)** 26 **(b)** 5 **(c)** 20.6

16. **a)** $\begin{pmatrix} -10 \\ 4 \end{pmatrix}$ **(b)** 10.8

17. Find the resultant force for each of the vector sets below:

a) $\begin{pmatrix} 12.5 \\ 6.5 \\ 3 \end{pmatrix}$ **(b)** $\begin{pmatrix} 1.5 \\ 5 \\ 1 \end{pmatrix}$ **(c)** $\begin{pmatrix} 0 \\ 0 \\ 3.5 \end{pmatrix}$

18. 10

19. a) £45638.63 (b) £1654.10 (c) 35437.5 tonnes (d) 62607.8 bacteria
e) £150 (f) £169.81 (g) He is not correct

20. a) $1\frac{9}{10}$ (b) $2\frac{5}{6}$ (c) $\frac{13}{15}$
d) $\frac{1}{2}$ (e) $6\frac{1}{15}$ (f) $3\frac{1}{4}$
g) $11\frac{3}{5}$ (h) $1\frac{3}{5}$

21. a) $12\frac{5}{6}\text{ m}^2$ (b) 19 cm^2 (c) $24\frac{5}{18}\text{ cm}^2$ (d) $11\frac{1}{3}\text{ m}^2$

22. a) Mean = 60 and SD = 11.03
b) On average the groups did the same on the test.
The second group of students results are more varied than the first.

23. a) Mean = 101 and SD = 1.7
b) On average the the number of pins in a box is higher for the second machine.
The number of pins for the second machines are more varied.

24. a) $m = \frac{25}{3}$ and y-int = 400 (b) $M = \frac{25}{3}H + 400$ (c) 1675kg

25. a) $S = 2F + 1$ (b) 41

26. a) $m = \frac{1}{2}$ and y-int = 20 (b) $P = \frac{1}{2}M + 20$ (c) 52%

27. a) $m = \frac{7}{9}$ and y-int = 12 (b) $G = \frac{7}{9}H + 12$