Starter

1. Multiply out the brackets and simplify
   a. $8 + 3(m - 4)$ b. $10(x + 4) + 2(x - 20)$

2. A rectangle has a length of 8.5 m and a breadth of 7 m .
   Calculate the **area** and **perimeter** of the rectangle.

3. Find the following
   a. $^3/_4 + {}^1/_2$ b. $^4/_5 - {}^2/_3$ c. $3^1/_8 + 1^1/_5$

4. A map has a scale of 1:200000.
   On the map, the distance between Maldon and Hillend is 6 cm.
   How far is it in real life (km)?

Starter

1. Round to 3 s.f.
   a. 654801 b. 0.9177 c. 10.089

2. Fully factorise
   a. $6pq - 12pr$ b. $4ab^2c - 2ab$ c. $45e^3f - 90e^2f^4$

3. Find the following
   a. $^2/_3 + {}^3/_4$ b. $1^3/_8 - {}^2/_3$ c. $6^4/_5 - 2^3/_4$

4. Joe leaves camp A and walks on a bearing of 230° to reach camp B. However, he soon realises he forgot his sleeping bag. What bearing must he take in order to return to camp A?

Starter

1. Multiply out the brackets and simplify
   a. $6(x - 5) - 2(2x - 1)$ b. $6k(1 + k) + 3k$

2. Calculate the volume of a cuboid with dimensions of 1.5 m by 30 m by 25 m.

3. Find the following
   a. $6\frac{4}{9} - 2\frac{1}{2}$ b. $\frac{3}{8} + \frac{2}{3} + \frac{3}{4}$

4. A helicopter leaves Aberdeen airport and flies on a bearing of 155° to reach the Durward oil platform.
   What bearing must it take to return from the oil platform to the airport?

Starter

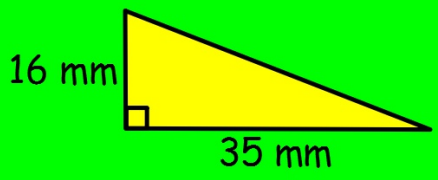
1. Multiply out the brackets and simplify

   a. $3a(2a + 5b)$

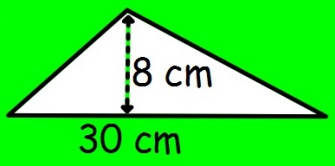
   b. $8g - 2(5 - g) + 3(g + 4)$

2. Calculate the area of these triangles

   a.



   b.



3. Solve the following equations

   a. $16z - 4 = 8 + 2z$

   b. $7 - x = 3x - 2$

4. Morgan's flight to Tenerife should have taken $3\frac{3}{4}$ hours. However, the plane was held on the runway due to fog for $1\frac{1}{2}$ hours.
   How long did it take for Morgan to reach Tenerife?

Starter

1. Find

   a. 12.5% of 1320 km b. $^{2}/_{7}$ of £315

2. Multiply out the brackets and simplify

   a. $4(2x - 5) + 3(4x + 7) - (x + 1)$ b. $10 - 2(6x - 1)$

3. If $a = 2$, $b = 6$, $c = (-6)$, evaluate the following expressions

   a. $2ab - c$ b. $3(b - c) - a^2$ c. $bc - (b + c)^3$

4. Scott is at work for $8^{1}/_{2}$ hours each day.
   However, he has $^{3}/_{4}$ of an hour off for lunch, and 20 mins off for a tea break.
   How long is he actually working?