Solutions

Marking: **K** knowledge, **App** use of the case or data, **An** analysis (a chain of reasons: cause, then effect), **Ev** evaluation (a judgement with a reason). In calculations, **M1** is for the method and **A1** for the answer; **B1** is an independent mark.

Each answer shows the steps, then the **result**.

2.1

CTR $\dfrac{2{,}160}{48{,}000} = \mathbf{4.5}\%$

conversion $\dfrac{306}{2{,}040} = \mathbf{15.0}\%$ of unique visits

the base must be stated: $\dfrac{306}{2{,}160} = 14.2\%$ of clicks is a different number

2.2

CPC $\dfrac{3{,}600}{2{,}160} = £\mathbf{1.67}$

CAC $\dfrac{3{,}600}{214} = £\mathbf{16.82}$

2.3

(b) attention; (c) interest

(d) desire; (a) action

2.4

retention $\dfrac{142}{214} = \mathbf{66.4}\%$

churn $\mathbf{33.6}\%$

3.1

(a) CTR $\mathbf{3}\%$; CPC $£\mathbf{1.67}$; CAC $\dfrac{4{,}000}{240} = £\mathbf{16.67}$

(b) $LTV = 12.60 \times 6 = £\mathbf{75.60}$; ratio $\mathbf{4.5}$

(c) 20% of sign-ups pay nothing, which raises the real CAC; fixing the sign-up-to-box step (e.g. a reminder) is cheaper than more ads

3.2

(a) influencer £25; search £16.67

(b) influencer $60 \times 9 \times 12.60 = £\mathbf{6{,}804}$; search $90 \times 4 \times 12.60 = £\mathbf{4{,}536}$

(c) the influencer: CAC is higher, but its subscribers stay much longer, so they bring 50% more contribution; judging by sign-ups or CAC alone gives the wrong answer

3.3

(a) ads: $\dfrac{10{,}000}{16.67} = 600$ subscribers $\times 75.60 = £45{,}360$, net $£\mathbf{35{,}360}$; retention: $1{,}000 \times 2 \times 12.60 = £25{,}200$, net $£\mathbf{15{,}200}$

(b) **5–6**: on these numbers ads win (App); but CAC rises as cheap audiences are used up, so the 600th subscriber costs more than the first (An); the retention gain also raises the LTV of every future ad, so the two plans support each other (An); the retention estimate is uncertain (Ev); judgement, e.g. most on ads with a CAC cap, and a small retention test (Ev). **3–4**: one plan analysed, or no judgement. **1–2**: relevant points.

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